A Lecture
ON
FLAT-FOOT AND THE CONSTRUCTION OF THE PLANTAR ARCH.

Delivered at Cambridge.

BY PROFESSOR HUMPHRY, F.R.S.

GENTLEMEN,—Frequent as is the occurrence of flat-foot, we seldom have an opportunity of making a dissection of the part. Such an opportunity having recently been obtained here, I will give you a short account of what we found. But before doing so I will make a few remarks upon the mechanism of the foot, and more particularly of the plantar arch.

The astragalus may be regarded as the key-bone of this arch, being the highest bone and transmitting the weight, which it receives upon its trochlear surface from the tibia, to the two pillars of the arch. Of these pillars, the hinder one, composed of the os calcis only, is short, thick, very oblique, slightly curved, with the concavity inwards, and having little elasticity. The anterior pillar, composed of the scaphoid, three cuneiform and three inner metatarsal bones, is longer, less obliqne, and more yielding or elastic. Hence in descending from a height, as from a chair or in walking downstairs, we alight upon the balls of the toes. If we alight upon the heel—for instance, if we walk downstairs upon the heels—we find it an uncomfortable and rather jarring procedure. In walking and jumping, it is true, the heel comes first in contact with the ground, but the weight then falls obliquely upon it and is not fully borne by the foot till the toes also are upon the ground. Though obviously the key-bone of the plantar arch, the astragalus differs in several respects from the key-stone of an ordinary arch. It is not, as a key-stone usually is, wedge-shaped, and so placed between the two pillars as to support and receive support from them, and thus to complete and give stability to the arch. The fore part of the astragalus, it is true, may be said in some measure to fulfil these requirements by the apposition of its ball-like anterior surface to the concave hinder surface of the scaphoid bone; but, posteriorly, the astragalus quite overlies and rests upon, without at all supporting, the os calcis. Hence the configuration of the bones has to be supplemented, and the arch is in great measure sustained, by the soft parts. Thus the os calcis, or hinder pillar, is held up to (not supported by) the astragalus by means of the interosseous ligament passing between and binding together the two bones. Secondly, the arch is braced underneath, and the two pillars are held together, by the strong calcaneo-scaphoid ligaments passing from the under and fore part of the heel-bone to the under and hinder part of the scaphoid bone; and these ligaments also directly support the head of the astragalus. Thirdly, the arch is supported on the outer side by a secondary or subsidiary arch continuous with it, which is formed by the outer part of the os calcis, the cuboid bone, and the outer two metatarsal bones; and this subsidiary arch is, in turn, held up by the calcaneo-cuboid ligaments. Fourthly, the plantar fascia extends between, and acts as a tie-beam to, the extremities of the pillars of the arch. There is the additional important difference from an ordinary arch that equilibrium is seldom long maintained, the line of weight which falls upon the astragalus being liable to continual shifting by the raising of one or other of the pillars of the arch during progression. In the ordinary "standing" position, no doubt, the weight is distributed to the two pillars of the arch directly from the astragalus, and indirectly from the calcaneo-scaphoid ligament which receives a part of the weight directly from the astragalus; and the weight is borne about equally by the two pillars. In the third stage of the step, however, when the hinder pillar of the arch is raised by the calf-muscle, which, through the tendo Achillis, acts in the plane of movement of the ankle—a plane that is passing through the os calcis, the middle of the ankle-joint, and the space between the two inner metatarsal bones,—the weight is thrown more forwards, through the head of the astragalus, upon the calcaneo-scaphoid ligament; and that ligament is now severely tried, being thus subjected to much pressure and at the same time to much tension through the pull upon the heel. At this juncture the muscles of the sole come to its relief. Especially so does the tibialis posticus, which, by its strong tendon underlying the ligament and the head of the astragalus and attached to the scaphoid tubercle, the three cuneiform, the cuboid, and the three middle metatarsal bones, assists to support the astragalus and braces the arch and the calcaneo-scaphoid ligament at the very moment when it is co-operating with the calf-muscle in raising the ankle, and throwing the weight upon the ligament. The action of this muscle is therefore very important in contributing to lessen the strain upon, and in giving support to, the calcaneo-scaphoid ligament, at the same time that by raising the ankle it is causing the strain and increasing the weight. The peroneus brevis and peroneus longus have a similar effect in raising the outer ankle and strengthening and steadying the ankle-joint and the plantar arch. The former, through the medium of the leverage afforded by the projecting proximal process of the fifth metatarsal bone, resists the inward tendency of the balls of the toes; and the latter, attached to a similar process of the first metatarsal, braces the under part of the sole, while it throws the weight over the ball of the great toe in the final stage of the step.

A further complication, and an important difference from the ordinary construction of an arch, and a source of weakness in the foot, is the mobility of the bones upon one another, the mobility being greatest between the scaphoid and astragalus, where, as we have just seen, the strain is greatest. The provisions for this movement necessitate the presence here of a ball-and-socket joint, which is ill adapted to bear weight, and which throws the work of resistance to displacement mainly upon the subtending calcaneo-scaphoid ligament. There is probably no structure of its kind in the body which has more arduous duty than this ligament, a duty associated with the high development of the human foot, and the perfect fulfilment of which is requisite for the steady and complete accomplishment of the step in walking. Some mechanical advantage is derived from the slight *out*ward curve of the inner border of the foot between the point of the heel and the head of the first metatarsal bone. This has relation to the direction of the line of weight from the leg upon the foot, which is slightly *in*wards as well as downwards and forwards when the foot is planted upon the ground; and a further resistance to this inward pressure is furnished by the coalescence of the anterior fibres of the deltoid ligament with the inner part of the calcaneo-scaphoid ligament.

The astragalo-scaphoid joint, being a ball-and-socket joint, would permit movement in any direction, but the movements are limited and determined by the ligaments and by the form of the articular surfaces of the calcaneo-cuboid joint with which it is associated, the two forming practically one joint, resembling a hinge-joint; and the movements are thus reduced to flexion and extension, which take place upon an oblique axis, passing from within downwards and outwards through the middle of the ball of the astragalus and the fore part of the os calcis. When the foot is raised from the ground this joint is flexed, and the two curves in the sole which have been mentioned—that with the concavity downwards and the slighter one, along the inner side of the foot, with the concavity outwards—are deepened. When the foot is placed on the ground the opposite condition is produced: the joint is extended, and both curves are lessened—that is to say, the foot is in some degree flattened along the plantar aspect and also along the inner side. The extent to which this takes place depends upon the weight which is thrown upon the astragalus from the leg and the measure of resistance offered by the subtending ligaments and muscles. During these movements of flexion and extension at the middle tarsal joint, associated with the raising of the foot from the ground and the placing it upon the ground, the fore part of the os calcis as well as the proximal or hinder part of the anterior pillar, consisting of the scaphoid and cuneiform bones, rise and fall; and the joints between the astragalus and the os calcis permit the latter bone to move a little obliquely beneath the former, this being requisite for the maintenance of the proper level of the trochlea of the astragalus. Now, if the flexion of this mid-tarsal joint be abnormally excessive or persistent, the double curves are preternaturally increased, and we have the

condition called "talipes cavus." If, on the contrary, the extension be exaggerated and persistent, the curves are lost, the sole is flattened beneath and is also flattened or bulged on its inner side, and the condition called "talipes valgus" or "flat-foot" is produced.

It may be further remarked that as in the variations upwards and downwards of the chief plantar curve the proximal parts of the plantar arch take their part, and the joints between the astragalus and the os calcis minister to this, so in like manner are the pillars of the arch affected and the calcaneo-astragalar joints concerned in the slighter lateral variations of the lesser or *out*wardly-directed plantar curve. Hence in the bulging of this curve inwards, which occurs in flat-foot, the os calcis and the components of the anterior pillar are inclined inwards, and the astragalus is carried inwards, in many cases so much that the trochlear surface is placed quite internal to the plane of traction of the tendo Achillis, instead of having its middle point in that plane. It is obvious how great a source of weakness this must be.

The interest, therefore, in the mechanism of the foot concentrates itself about the head of the astragalus, and the manner in which, in different positions, it is supported by the calcaneo-scaphoid ligament and the tendon of the tibialis posticus. This part bears a large amount of weight in standing, and has the chief weight thrown upon it in the several stages of the step in walking, more particularly when the foot is planted on the ground and when the heel is being raised from the ground; and the line of weight, especially if the toes be directed outwards, is *in*wards, as well as downwards and forwards. Hence in prolonged walking or standing, when the muscles have become fatigued and the tibialis posticus fails to afford its wonted support and brace, and the strained ligaments yield, the head of the astragalus, and with it of course the entire astragalus, gradually inclines more and more in the direction downwards, inwards, and forwards, the sustentaculum tali and the scaphoid bone are separated and descend, and the tarsal arch is lowered and bowed inwards. Further—and this is a very important change in a mechanical point of view—the trochlear or weight-receiving surface of the astragalus, instead of being in the plane of action of the calf-muscle and tendo Achillis—viz., in a line between the point of the heel and the interval between the inner two metatarsal bones—comes to occupy a position internal to that plane.[1] The dropping of the arch, being attended with a distancing of the two points of support, will cause slight lengthening of the foot, which will be somewhat lessened by the bowing of the arch inwards. Here let it be remarked that this change is peculiarly likely to occur during the growing period, when the structures are imperfectly shaped and formed, and when, inasmuch as shape is continually altering, they are ill fitted to bear any one position if prolonged, and especially if they are weighted in that position. The free-and-easy movements, the restlessness or fidgetiness, indeed, of the young is a provision against this source of deformity in the several parts of the body. Unfortunately, owing to the long-continued sitting posture enforced by the usages of civilisation, this provision is too often lost to the spine of the school-girl; and in the enforced standing of young persons in service or shops it is too often lost to the foot of growing boys and girls, to say nothing of the additional trials by weight-carrying and fatigue to which this ill-used part is subjected in errand-boys and many others. No wonder that not simply do the ligaments yield, but that the bones of the foot become deformed, as we find to be the case in the spine in lateral curvature and in the femur, if not in the tibia, in knock-knee.

If now we examine the specimen before us, we see that the middle part of the arch is lowered and bowed inwards. The whole of the key-bone, or astragalus, and the adjacent parts of the pillars—viz., the fore part of the os calcis and the scaphoid with the cuneiform bones—are below their proper level, and form a marked convexity on the inner side of the foot. The heel-bone slants from behind, not, as in the normal condition, obliquely upwards and a little *out*wards, but *in*wards and only slightly upwards. Hence the sustentaculum tali, the head of the astragalus, and the scaphoid tubercle, which should be scarcely seen from behind, form marked prominences on the inner side. The os calcis is moreover inclined over to the inner side—that is to say, has undergone a certain amount of super-pronation,—so that the outer tubercle at the heel is at some distance from the ground. The extremity of the fibula is nearly in contact with the upper surface of the os calcis, but does not actually touch it; and the calcaneo-cuboid joint is in a state of forced extension. With regard to ligaments, the fibres that have undergone most change are those that form the inner part of the calcaneo-scaphoid with the adjacent or continous portion of the deltoid. These are much stretched over the bulging head of the astragalus in the enlarged space between the inner malleolus and the sustentaculum tali behind and the scaphoid tubercle in front. The under and outer part of the calcaneo-scaphoid ligament is somewhat stretched and thinned, but otherwise little altered. The remainder of the deltoid ligament, the three parts of the external lateral ligament, the interosseous ligament between the os calcis and the astragalus, and the calcaneo-cuboid ligaments are all rather thin, but not much altered.

Removing the tibia and fibula, we notice that the trochlear surface of the astragalus, the facet for the internal malleolus, and that for the external malleolus, are all somewhat restricted from before backwards, indicating that the movements of the ankle-joint, which consist only of flexion and extension, were rather limited. This is particularly marked in the case of the facet for the fibula, which is devoid of cartilage in its anterior third. It is also observable that the outer margin of the trochlea does not rise so high as usual, which explains the circumstance, before difficult to understand, that the vertical line of the leg-bones upon the astragalus and the foot was maintained, although the heel-bone was, as just stated, rolled over to the inner side, or super-pronated. This subsidence of the outer edge of the trochlea appears to be due to a hyper-rotation of the astragalus upon the os calcis, an excess of that movement upon a vertical axis, or rather upon a slightly oblique backward and downward axis, whereby, as I have mentioned, the astragalus and the os calcis are accommodated to one another during the variations of the plantar arches. The effect of this hyper-rotation has been to turn the hinder margin of the astragalus slightly outwards, the anterior part or ball a little inwards, and the outer process—"processus fibularis," as it has been called—somewhat downwards and forwards upon the upper surface of the os calcis, or rather upon the outer part of the interosseous ligament, which normally intervenes between the os calcis and this process. In other words, there is a persistent condition, in an excessive degree, of the position which the astragalus assumes towards the os calcis when the foot is placed upon the ground and the plantar arches yield under the superincumbent weight. I say *persistent* condition, because the rotation in the opposite direction (that which in the normal state occurs when the foot is taken off the ground or is relieved of weight) was in this case abnormally restricted, the proper form of the part not having been resumable for a long time, probably for years. There is a well-marked articular facet upon the fore part of the processus fibularis, where it came into contact with the os calcis and the interosseous ligament. A facet in this situation is, however, not uncommonly present in the natural state of the parts. The articular surfaces between the astragalus and the os calcis presented nothing obviously abnormal. The greatest changes, however, are in the articular surfaces of the astragalo-scaphoid joint, in the ball or convex fore part and neck of the astragalus, and in the socket or concave part of the scaphoid bone. This joint had long been maintained in an over-extended position, and very little movement could be effected in it. The uppermost part of the convex surface of the astragalus, which is usually very pronounced, has been thrown back—pressed back—towards the trochlea, and raised into an eminence by some heaping up of bone on the adjacent portion of the neck; and it presents in front a small flat, or slightly concave, articular surface, upon which a corresponding facet on the upper part of the scaphoid impinged. The convex anterior part of the astragalus below this rested in a preternaturally deep concavity of the scaphoid; and the inferior and inner part, thinly and unevenly covered with cartilage, was in contact with the expanded calcaneo-scaphoid and deltoid ligaments. By these changes in the form of the articular surfaces the ball-and-socket between the astragalus and scaphoid is deepened and lessened in area, and is surmounted by and continued into a flat or arthrodial portion, which restricts, and indeed almost prevents, movement between the two bones. This is the only deviation from the natural conformation in the bones of the foot which is worthy of notice; and I think there can be little doubt that it is a

[1] On this and other points relating to the subject see a valuable paper on "Acquired Flat-foot," by J. Symington, M.B., in the Journal of Anatomy and Physiology, xix., 83.

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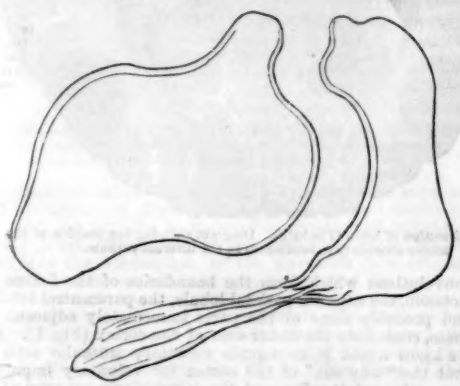
consequence, and not a cause, of the deformity, being due to an alteration in the direction of pressure induced by the lowering of the plantar arch which resulted from a yielding of the ligaments. It may be observed, indeed, that the alteration in the bones is of such a kind as to prevent rather than favour a further increase of the deformity. At the same time it would have been an obstacle to the return to the natural position, which in so advanced and long-standing a case, and with such alteration in the articular surfaces, could not have been effected without osteotomy, if at all.

Flat-foot is sometimes spoken of as a condition of *hyper-pronation*, but not quite correctly, for it is not that necessarily, or indeed essentially; at least, that is not the main feature of the deformity, the inner edge of the foot and the great toe not being usually turned down as they would be in hyper-pronation. It really consists, as I have shown you, and as you may judge for yourselves in almost any case, in a persistent, over-extended, and incurved condition of the middle and chief joint of the tarsus; and it is due to a wearying of the muscles, more particularly the tibialis posticus, and a stretching of the ligaments, more particularly of the inner part of the calcaneo-scaphoid, with the confluent fore part of the deltoid and the calcaneo-cuboid. The altered direction of the pillars of the tarsus and the pronation of the heel-bone are, as we have seen, necessary sequences, or rather accompaniments; and the lowering and incurvation of the arch, together with the passage of the astragalus internal to the plane of action of the calf-muscle, seriously weaken the foot, and



Vertical section of the astragalus and scaphoid bone, with part of the calcaneo-scaphoid and deltoid ligaments, in a case of flat-foot.

lessen the ability to complete that important stage of the step which consists in using the ball of the great toe as a fulcrum for the action of muscles whose function it is to raise the heel and the ankle. Alteration in the form of the bones may follow from continued undue pressure upon certain parts, as in the upper part of the ball of the astragalus in the specimen before us. (See engraving.) But this cannot, usually at least, be an early feature; for in incipient stages of the condition the parts readily assume their natural relations when the weight is removed, which could not be the case if the bones had undergone a change of form. In the early stages relief from weight and muscular exercise of the foot will effect a cure. In the later stages, especially if such bone-deformity as we have witnessed have taken place, nothing short of an osteotomy will do good.

There is another point in the pathology of flat-foot I would mention. It has relation to the muscles which fall into opposite conditions on the two aspects of the foot, both of which conditions add to the difficulty of relieving the deformity; and the one is apparently, to a considerable extent if not entirely, induced by the other. The muscles on the tibial and flexor aspect of the foot become relaxed and enfeebled, so that they fail to exert their proper contractile power and cease to afford their proper support and to effect the normal movements of flexion and incurvation. Hence the antagonistic muscles—the extensors and the peronei,—not being duly stretched or extended, fall into a contracted and irritable condition, which in no small degree aggravates the deformity and the discomfort arising from it; and the condition is further increased, or it may in some cases be excited, by the demand made on them to steady and brace the tarsus when the foot is placed on the ground and the weight of the body is thrown over it. Their state is similar to that of the muscles on the outer side of the knee in cases of knock-knee, and of those occupying the concavities of the spine in cases of lateral curvature; and it is analogous to that of the flexor muscles in cases of disease of the knee and other joints. This state is relieved by rest, especially if the rest is combined with extension by means of a well-applied splint; but it soon returns unless the treatment is continued for a sufficient period.

Gulstonian Lectures

ON

SPASM IN CHRONIC NERVE DISEASE.

Delivered at the Royal College of Physicians of London, March, 1886.

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—When I was informed that I had been nominated to fill the honourable position of Gulstonian lecturer for 1886 I consulted the records of the College in order that I might acquaint myself with the conditions attaching to the lectureship. I found that they were few in number, and that the main object which Dr. Gulston had in view was to secure, not only an annual dissertation on certain diseases, but also a practical demonstration of their pathological anatomy. It seemed to be incumbent, therefore, upon the lecturer to choose a subject which he could illustrate, however imperfectly, from his own experience, and I selected that class of chronic diseases which have this at least in common, that they are associated with muscular spasm. To you, who know the wide range of knowledge and the ample experience which would be required to treat such a subject exhaustively, this proposal must appear pretentious to the last degree. I am fully aware, however, that the limited time at my disposal, and still more the limited knowledge I possess, make an exhaustive consideration of it impossible. I merely propose to take a general view of chronic nerve disease in its association with muscular spasm, and to consider how far our present knowledge of pathology enables us to understand the phenomena which present themselves.[1]

By spasm is meant excessive muscular contraction; and, if we confine our attention to those muscles which are under the control of the will, excessive contraction is that which occurs in defiance of the will, or which, although commencing as a voluntary act, transgresses the limits which the will would impose upon it.

There is great variety in the spasmodic affections which have been observed in man, and to which descriptive names have been given. Thus, "tonic" spasm indicates persistent muscular contraction, a tetanic condition of a muscle or of groups of muscles, in which the individual waves of contraction overtake each other and are fused into one. "Clonic" spasm is a term applied to conditions in which the individual waves succeed each other less rapidly and often quite irregularly, giving rise to a great variety of intermittent spasms. The "coördinated spasms" form another class, in which groups of muscles are the seat of clonic contractions, which are coördinated in such a manner as to produce some regularly recurring though involuntary movement. It is unnecessary to proceed further in explanation of the many forms of pathological contraction of muscle which are embraced under the term "spasm"; they will be referred to again in connexion with the diseases which they accompany.

[1] I am indebted to my friend, Dr. Theodore Acland, for many of the microscopic preparations from which drawings have been made, and to Mr. Shattock, Mr. Burgess, and Mr. Lapidge for most of the drawing.

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In health, as a rule, contraction of striated muscles depends on impulses transmitted to them through the nervous system and travelling down motor nerves; and the same may be said of that which is the product of disease; so that the motor nervous mechanisms afford a suitable basis, in connexion with which we may survey our present knowledge of the conditions which give rise to spasm. It is convenient, and I might almost venture to say scientific, to divide the motor mechanisms into a cerebral system and a spinal system; the latter forming a groundwork on which the former is superposed, comparatively late in the history of the development of the individual, and probably of the species. It might be thought that, considering the importance of the cortical centres of the hemispheres, of the central ganglia, and of the cerebellum, the term "cerebral systems" would be more appropriate than "cerebral system." But it is better, at any rate in considering spasmodic diseases, to embrace them all under one head; for our present knowledge of anatomy, physiology, and pathology does not justify us in concluding that there is any efferent motor connexion between the brain and the spinal cord except the pyramidal tract, direct and crossed, diseases of which give rise to muscular chronic spasm. Evidence in support of this view will appear in the course of these lectures.

The terms "cerebral system" and "spinal system" are intended to be anatomically exhaustive, and to comprehend all possible nerve mechanisms by which spasm is produced. There should be no room for any further division of the subject. But our ignorance, especially of the finer molecular changes which accompany not only abnormal but normal neuro-muscular conditions, during action and inaction, necessitates some reference to those spasms which are called functional, and which will, we may hope, with advancing knowledge, become amenable to a more accurate classification. The divisions of the subject, then, as now proposed are—(1) spasm in connexion with cerebral motor mechanisms; (2) in connexion with spinal mechanisms; (3) functional spasm.

1. SPASM IN CONNEXION WITH CEREBRAL MOTOR MECHANISMS.

The nerve fibres, which bring the voluntary muscles of the body under the control of the will, originate, so far as we know, in the central portions of the cortex. Experiments on living animals first yielded the clue to this discovery in man, and pathological evidence has abundantly corroborated

FIG. 1.

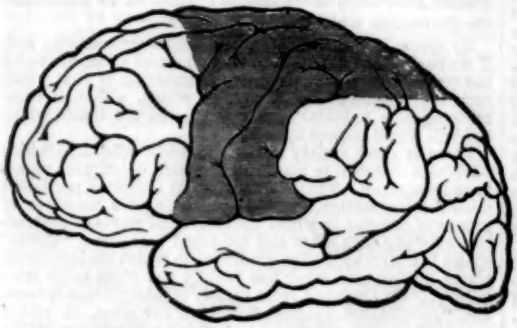

Diagram showing the position of the motor area of the cortex on the external surface of the brain.

the facts derived from this source. On an occasion like the present, it will not be thought a presumption if I refer to my own observations upon this point. In a paper published in THE LANCET of Sept. 29th and Oct. 6th and 13th, 1883, I recorded six cases of cortical lesions, all occupying the region in question, and all accompanied by motor paralysis, which occupied the face, arm, and leg, according to the localisation of the disease. It is unnecessary at present to enter into much detail on this subject. The two ascending

FIG. 2.

Horizontal section of brain (Flechsig). Diagram showing the position of the motor strands (*a a*, unshaded) in the internal capsule.

convolutions which form the boundaries of the fissure of Rolando, the superior parietal lobule, the paracentral lobule, and probably some of the parts immediately adjacent to these, constitute the motor area of the cortex (Fig. 1). All we know about it, as regards voluntary muscular acts, is that the "way out" of the cortex for voluntary impulses passes through it. Some of the motor fibres are connected with processes of large ganglionic cells, which form a very striking feature of this region of the brain, and which resemble the cells of the anterior cornua of the spinal cord. The centres which are in connexion with the leg occupy the upper part, those which are in connexion with the arm the middle, while the lower portions, near the fissure of Sylvius, preside over the muscles of the face and tongue. During a part of the very long course which the fibres coming from the motor area pursue, the bundles on their way to the spinal centres for the face, arm, and leg remain distinct. Thus, passing from the cortex through the white substance of the hemispheres, they converge to the internal capsule, and occupy the knee and anterior two-thirds of its posterior segment, which lie between the optic thalamus and the lenticular nucleus (Fig. 2). In the capsule, the nerves for the face and tongue centres occupy the knee, the fibres for the arm come next, and those for the leg lie posteriorly. The knowledge of their relative positions in the internal capsule, which is a somewhat recent acquirement, is of great interest, because it probably affords at least part of the explanation of a long-observed clinical fact—namely, that in hemiplegia in connexion with disease of the central ganglia the arm is usually more paralysed than the leg. For hæmorrhages from the branches of the lenticulo-striate and lenticulo-optic arteries would from their position press more upon the anterior than upon the posterior division of the motor segment of the capsule.

Leaving the internal capsule, the fibres under consideration pass to the superficial part (basis) of the crus (Fig. 3), and there occupy its median portion, and are so placed that

the fibres presiding over the face are situated internally, those over the leg externally, and those in connexion with the arm centrally.

Arrived at the pyramids in the medulla oblongata, the fibres going to the spinal motor centres for the body and limbs decussate, those for the face and tongue having already done so a little higher up. It has been estimated that about 91 to 97 per cent. decussate; but the number probably varies within wide limits, so much so that there is good reason for thinking that in some cases complete decussation, in others none at all, takes place. Flechsig has also shown that in the same spinal cord the two sides may

FIG. 3.

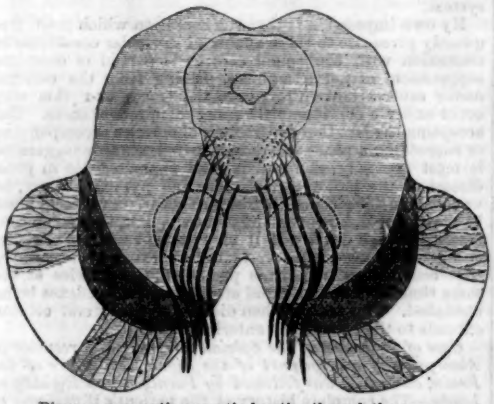

Diagram representing a vertical section through the crura cerebri. *a a* (unshaded area) show the position of the motor fibres from the motor area of the cortex.

be unsymmetrical in this respect. Some observers suppose that decussation of fibres of the pyramidal tract occurs in the cord, but nothing is known for certain with reference to this point. That part of the pyramidal tract which crosses at the decussation of the pyramids (the crossed pyramidal tract) occupies the posterior part of the opposite lateral column in the cord, being separated from the surface of the latter by the direct cerebellar tract. The fibres which do not decussate (direct pyramidal tract) pass down the cord on the same side, occupying a narrow strip along the margin of the anterior fissure (Fig. 4). The fibres of the

FIG. 4.

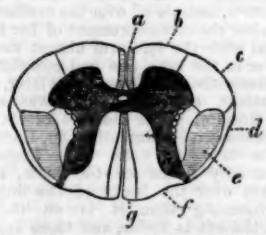

Diagram of a section of the spinal cord in the cervical region (Flechsig). *a*, Direct pyramidal tract. *b c*, Antero-lateral column. *d*, Direct cerebellar tract. *e*, Crossed pyramidal tract. *f*, Columns of Burdach. *g*, Columns of Goll.

pyramidal tract finally form connexions with the multipolar cells in the anterior cornua of the cord, either directly or through the intermediation of other nerve cells.

It is a well-known fact that nerve fibres in general depend for their integrity upon connexions with ganglionic cells, and that when these are severed the fibres degenerate. Thus, the motor fibres of the cord depend upon the cells in the anterior cornua; the sensory fibres upon cells in the ganglia on the posterior spinal roots; while the healthy nutrition of the fibres of the pyramidal tract is dependent upon the cells in the motor convolutions. If their connexion with the latter be anywhere interrupted, or if the cells themselves be destroyed, degeneration occurs in the whole tract below. When this has taken place, tonic spasm supervenes in the muscles, which are, in health, under the control of these fibres. But between fully developed spasm and the earlier slighter indications of its presence there are many gradations. Taking, for instance, what is perhaps the commonest condition which gives rise to these events—namely, destruction by a sudden hæmorrhage of the motor portion of the internal capsule—it is often some months before well-marked spasm is observed; but in the meantime there are phenomena which foretell its coming. The most striking and frequent of these is the increased knee-jerk which a tap on the patellar tendon elicits. The knee-jerk may be diminished for some time after the apoplectic attack; but, if the fibres of the pyramidal tract have been interrupted, it soon becomes exaggerated. What are termed ankle-clonus and knee-clonus (phenomena which it is unnecessary to describe before an assembly like the present) soon appear, or may do so; for they are not necessarily present where the disease is slight. Charcot reports a case where ankle-clonus appeared eight days after the hemiplegic attack, and late rigidity began within three weeks; and another, in which it set in in one month, and late rigidity in two. Pitres gives cases in which clonus was observed in from eleven to fifteen hours. But in any case it may be said that increased tendon-reflexes and clonus precede rigidity; and, in many cases of chronic disease of the lateral columns of the cord, they are to be found a very long time before rigidity, or the latter may not set in at all before death occurs. Sometimes one tap on the patellar tendon gives rise to a succession of knee-jerks, and like phenomena may appear in the other limb, or in muscles still further removed. Brissaud asserts that even the non-paralysed side is not healthy, but presents in a certain degree these phenomena, which he terms "latent contracture." To what cause are these increased tendon reflexes to be referred?

Muscular tone is that condition of tension in healthy muscle which is, no doubt, due to nerve impulses proceeding from the cells in the anterior cornua of the spinal cord. A certain number of observers have come to the conclusion that the knee-jerk and other tendon contractions are local phenomena, due to direct contraction of the muscle, which is temporarily put upon the stretch by tapping its tendon. Its increase is due to the increased tension which results from severance of the spinal centres from the cerebral motor centres, which exercise a controlling power over those below, this severance producing increased muscular irritability. But for the tendon phenomena to take place at all the reflex arc producing tension must be intact.

Other authorities have convinced themselves, by equally careful observations, that the tendon phenomena are true reflex neuro-muscular acts. The objection to this conclusion, which appears insuperable to their opponents, is that the latent period is much too short for a reflex act. But surely it is not legitimate to bind all reflex acts by the exact laws which appear to govern skin reflexes. It is probable that conduction in nerves does not take place at precisely the same rate in every reflex arc in the body, nor even that the time required to reflect the afferent impulse on to the efferent nerve is uniformly the same. This will depend upon the purpose for which the muscular act is excited, and the speed with which it needs to follow upon the stimulus which evokes it. Now there are, as has been proved, nerve-endings in muscles and tendons; and it is not improbable that the slight stretching of the latter, which is produced by the action of antagonists, gives rise by means of a reflex act to the steadying action, which is always aroused by the contraction of opponents. This would require great sensitiveness on the part of the reflex arc; for, considering the suddenness of many muscular acts, the steadying contraction of the muscles not directly producing the movement would require to be almost equally sudden. If the muscular act which follows a tap on the patellar tendon be a purely local phenomenon, due to "myotatic irritability," it is difficult to explain those cases in which contraction of muscles in the opposite leg, or even in the arm, occurs. Gowers states that the latent interval for the knee-jerk is $\frac{1}{18}$ to $\frac{1}{10}$ sec., and that physiological data require that it should be $\frac{1}{17}$ sec. if it be a true reflex. But what will be said of the following equally legitimate argument? The interval for the knee-jerk is $\frac{1}{17}$ sec. Dr. de Watteville and Dr. Waller have found the interval for the jaw-jerk to be $\frac{1}{25}$ sec., which is only half the interval required for the knee-jerk. Therefore, the phenomena are not produced in a similar manner. Dr. de Watteville says

that Dr. Waller has determined the latency of the closure of the eyelids to the stimulus of a strong light to be $\frac{1}{10}$ sec., the shortest true reflex known. This differs much less from the interval for the knee-jerk ($\frac{1}{25}$ to $\frac{1}{10}$ sec.) than the latter differs from the jaw-jerk ($\frac{1}{75}$ sec.).

We know too little about the various reflexes which occur in the body to consider it as proved whether tendon phenomena are reflex or not; but it is at any rate satisfactory to feel that, for all practical purposes at the bedside, either theory is equally applicable; for the keynote to both is integrity of the reflex arc, and changes in the latter are necessarily accompanied by changes in the tendon phenomena.

Let us assume, provisionally, that the knee-jerk and other allied contractions are reflex. Why are they increased in disease which interrupts the continuity of the pyramidal tract, or destroys the motor cells in which its fibres originate? Probably the reason is, not that the descending sclerosis produces irritability of the cells in the anterior cornu, but, as Hughlings Jackson says, that the suppression of the functions of the pyramidal tract gives rise to "permitted hyperphysiological activity," the spinal centres being "let go." This view is strongly supported by those cases of congenital absence of the whole or a part of the motor centres in the brain which are accompanied by contracture of the limbs similar to that which occurs in lesions of the pyramidal tract resulting from disease, for in these cases the pyramidal tract has been proved to be deficient. This was the condition found by me in a case which I shall relate presently. The pyramidal tract is not developed until very late, and is not even complete at birth; and in the cases of congenital disease referred to it is not developed at all, or only in part. Even in disease which occurs in adult life and produces descending sclerosis, if the cord be examined after many years, the process of atrophy has long been completed, the nerve-fibres have disappeared, and nothing remains but a quiescent cicatrix. This was so in another case which I shall relate. In such conditions, no active process is going on to produce contracture; there is merely destruction of the pyramidal strands. Again, the exhaustion following upon the motor discharge in epilepsy may give rise to temporary increase in the knee-jerk or to ankle-clonus; and the same may be said of that suppression of function produced by the slighter degrees of chloroform narcosis. In short, the excessive tendon reflexes and contractions which result from descending sclerosis are merely evidences of abolition of the function of the cerebellar motor tract, which in health controls the action of the spinal ganglia.

Objections have been made to this view on the ground that sudden disease, such as cerebral hæmorrhage, which destroys the fibres of the internal capsule, does not give rise to the phenomena in question immediately, but only after the lapse of a certain time. The cases recorded by Pitres, in which ankle-clonus was observed to supervene in a few hours, prove that this delay is not an invariable rule; and even if it were, it would not be unreasonable to suppose that cells which have long been under the control of others should require a certain time before they learn to exert a power to which they have hitherto been unaccustomed. We may therefore look upon increased tendon reflexes, clonus, and contracture as degrees of independent neuromuscular action, originating in the spinal centres, which have run riot owing to the diminution or annihilation of the inhibitory functions of the pyramidal tract.

But it may be further asked, Does the appearance of one or all of these phenomena prove that there is gross and tangible disease of the cerebral motor cells or fibres? The answer is, Decidedly not. In THE LANCET of Nov. 7th, 1885, Dr. Angel Money records his experience of "Reflex Actions, Knee-jerks, and Muscular Irritability in Typhoid Fever, Phthisis, and other Continuous Fevers"; and he shows that all the phenomena, except tonic spasms, are found in these conditions. But even contracture may occur in fevers. I have myself seen it in typhoid fever, and Dr. Murchison mentions its occurrence in typhus and relapsing fevers as well. Speaking of the former, he remarks: "Contraction and rigidity of certain muscles are observed more rarely, and only in severe cases. The fingers may be tightly clenched, or the forearm flexed, or, in rare cases, there is trismus or strabismus. In twelve cases I have observed tonic spasms of many different muscles. Twice I have seen the legs and thighs so bent that the knees almost touched the chin." A man, suffering from extreme debility and anæmia, came lately to my out-patient room, and the house-physician called my attention to the fact that he had not only very excessive knee-jerks, but as marked knee- and ankle-clonus as I ever saw. He was sent into the hospital, and after two days' rest in bed I was unable to elicit even the slightest clonus. Such cases as these, together with others in which recovery has occurred, justify the verdict which Dr. Donkin gives in *Brain* (October, 1885). "It seems clear," he says, "at present that we must bear in mind that we have not done with spastic paraplegia by calling it lateral sclerosis, remembering the cases which recover, whether they are quite obviously functional or not, but must believe with Friedreich, Wilks, and others, that the symptoms may occur under various forms of disorder or disease of the nervous system."

My own impression is that the condition which most frequently gives rise to these abnormal muscular conditions in connexion with the spinal centres is partial or complete suppression of nerve impulses, passing from the cerebral motor centres down the pyramidal tract; and this may occur under a considerable variety of circumstances. But accepting the fact that contracture of muscles accompanying or succeeding a phase where tendon-reflexes are exaggerated is most typically seen and is most characteristic in gross disease of the motor convolutions and pyramidal tract, let us consider some concrete instances of it. Two facts must be remembered, however, and these are, first, that when contracture is well developed it may prevent us from eliciting ankle- and knee-clonus or tendon-reflexes; and, secondly, that contracture sometimes passes off, the muscles at the same time undergoing rapid atrophy and the reflexes being abolished. This occurs when disease of the lateral column extends to the cells of the anterior cornu.

Case of Embolism of the Sylvian Artery, which resulted in Absorption of a large part of the Right Hemisphere of the Brain, and which was followed by Paralysis and Rigidity of Limbs.—The complete history of the patient's illness and of the post-mortem examination is recorded in the Transactions of the Royal Medical and Chirurgical Society for 1884, and I shall not enter into much detail now. The case is an instance of extensive destruction of the cortex and central ganglia on one side, producing descending degeneration in the cord, together with the symptoms which are characteristic of that condition. E. J——, aged thirty-four, was admitted into Guy's Hospital on March 8th, 1876, under the care of Dr. Pavy. She had never had any serious illness, and, though married ten years, had had no children. Suddenly she was attacked with giddiness, faintness, and sickness, and had an epileptiform seizure. After four days she recovered consciousness, and found that she was paralysed on the left side, and had no sensation on that side of her body. On admission she was found to have ordinary complete hemiplegia and hemianæsthesia on the left side. She had, in addition, a systolic murmur, audible all over the cardiac area. About four months after the commencement of her illness she left Guy's Hospital with the left arm almost useless, but with very fair power in the leg. She had completely recovered from the hemianæsthesia. Seven years later, on March 7th, 1883, the patient, aged forty-one, was admitted into St. Thomas's Hospital, under the care of Dr. John Harley, with aortic disease and bronchitis. Dr. Hadden, the registrar, made the following note. "The fingers of the left hand are partially flexed on the palm, and decidedly stiff. The skin over the backs of the fingers is whiter and more glistening than it is on the right hand. The grasp on the left is feeble, and there is rigidity of the flexors of the forearm and arm. The tendon-reflexes are very brisk in the left, but are hardly obtainable in the right arm. The left leg is somewhat rigid, the patellar-tendon reflex brisk, and there is slight ankle-clonus. The tongue is protruded straight. Slight paresis is observed in the muscles on the left side of the face. There is no loss of sensation. On casual examination at the bedside, the left eye appears to be sound, and there is no hemianopia or colour-blindness. Tested with a watch, hearing is found to be sharp, and equal on the two sides." The patient died somewhat suddenly on May 17th. The husband informed me that from the period of her attack, seven years before her death, she had been weak-minded and queer, doing unaccountable things, such as she had never done before, but that she remained a good-tempered, hard-working, and affectionate wife. On post-mortem examination, marked aortic disease (ulcerative endocarditis) was found, and there was great cardiac hypertrophy, the heart weighing 17½ oz. The lungs were hyper-

æmic and œdematous at the base, and the lower portion of the right was semi-solid. The liver showed slight congestion in the centres of the lobules ("nutmeg"). The kidneys weighed 11 oz.; the capsule was thick and adherent, the substance very firm, and the surface granular. The spleen was hard and its capsule thick. In the right hemisphere of the brain the parts supplied by the middle cerebral artery were extremely wasted, and many of the convolutions had entirely disappeared. The central ganglia, too, were so much affected that the measurement from their intra-ventricular aspect to the outer surface of the convolutions of the island of Reil on the right, was not much more than one-third of that on the left. Descending degeneration of the lateral column, and also of the column of Türck, could be seen in the spinal cord; and the alteration in both these strands of fibres was situated on the side opposite the diseased hemisphere.

This case, the brain of which is now shown, together with drawings of microscopic sections of the spinal cord (Figs. 5, 6, 7), is of interest, not only because of the long time the patient lived after such extensive destruction of one hemisphere, but also because it is an instance of total decussation of the pyramidal tract. It will be seen on examination of the sections of the cord that the left half is very much smaller than the right, and that the white substance bordering on the anterior fissure, the column of Türck, is decidedly smaller on the left than on the right; that is to say, there is no direct pyramidal tract, but the whole of the fibres from the right hemisphere appear to have crossed, and to have gone, some into the left lateral column, some into the left column of Türck. On microscopic examination of the sclerosed tracts, there is seen simply diminution in the number of white fibres, and increase in the density of the neuroglia in the affected lateral column. Apart from the irregularity which exists in the columns of Türck, there is very little structural difference to be made out in them. The softening, which produced hemiplegia and subsequent rigidity in this instance, involved the cortex, central ganglia, and internal capsule.

Lesions need not, however, be so extensive in order to give rise to paralysis with rigidity. Destruction of a portion of the motor convolutions, or of the subcortical fibres connected with them, or of that part of the internal capsule through which the motor strands pass, produces the same phenomena. Cases of softening of portions of the cerebral cortex of long standing do not often come under the observation of pathologists in the post-mortem rooms of general hospitals; or, if they do, I have been singularly unfortunate in not meeting with them. A girl about eleven years of age, who was under my care as an out-patient at St. Thomas's Hospital, had had a very severe burn on the right side of the head when she was two years old. The scar occupied the greater part of the parietal region, and it was perfectly destitute of hair. I got no very clear details of the symptoms which succeeded this accident, except that she lost power all down the left side, a condition from which she had never recovered. Since then she had been subject to epileptic fits, in which the left side was convulsed; but she did not lose consciousness. The arm when I saw her was rigidly contracted, the leg being much less affected, and the deep reflexes were excessive all down the left side. Now, although the actual state of things was not demonstrated by a post-mortem examination, it is pretty certain that the burn caused superficial disease of the parts situated immediately below and within the cranium, and destruction of a portion of the motor cortex, with descending degeneration of the pyramid of the tract, was the result.

Case of Perforating Tuberculosis of the Skull, with Cerebral Symptoms.—In *Brain* (April, 1885) Dr. Edmunds describes a case which affords a good instance of descending degeneration and rigidity from a limited cortical lesion. The patient was a boy of fourteen, of a delicate family. Eighteen months before admission into St. Thomas's Home he had suffered from what was supposed to be tubercular peritonitis, and at the same time an abscess, accompanied by much headache, formed in the region of the left parietal bone. About six months later he complained occasionally of numbness in the right arm and hand, and two days before admission he had his first fit. He felt giddy, fell, became unconscious, foamed at the mouth, bit his tongue, and passed urine involuntarily. Both legs were convulsed, the right arm flexed, and the right hand clenched. He was admitted into St. Thomas's Home on Sept. 3rd, 1884. An abscess was found situated over the left parietal bone. The grasp of the right hand was much weaker than that of the left, and there was very slightly deficient power in the right leg and right side of the face. Sensation was everywhere normal, but double optic neuritis was present. I saw the patient with Dr. Edmunds at this time, and subsequently the abscess was laid freely open and a piece of dead bone removed, so that the dura mater was exposed and the pulsations of the brain could be seen. After this he had two fits, much like the one already mentioned. The discharge from the opening in the skull gradually diminished and the scalp covered over the edges of the wound, so that when he left the hospital there was a defect in the skull and scalp, through which the dura mater could be seen. A silver plate was made to protect this. On Feb. 4th, 1885, he left the Home, the chief symptom of disease which he presented being partial paralysis of the right arm and hand; when tested with the dynamometer, the right hand only marked twenty, the left seventy.

(To be concluded.)

ON SOME

MODERN REMEDIES IN HEART DISEASE.[1]

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THE purpose of this communication is distinctly practical. It is not to discuss the probable therapeutic position of agents of quite recent introduction, but to apply the test of practical experience to some remedies which have not come into general employment in the treatment of diseases of the heart but which have been, in my opinion, sufficiently investigated for the formulation of some valuable lessons. I propose to consider the two agents caffeine and convallaria majalis, and to place on record as succinctly as possible my experience of their effects in cases of mitral disease. We all know that it is dangerous in therapeutics to be too positive, and that in investigation it is impossible to be too careful. We cannot have mathematical precision, because it is impracticable to group similars. I have, however, distinctly divided the cases of mitral stenosis from those of mitral regurgitation, and the importance of such separation will presently be seen.

I.—MITRAL REGURGITATION.

We will first consider the conditions and the nature of the cases with which we have had to deal. We must all be convinced that though structural disease has rendered the closure of the mitral orifice in systole imperfect, such a state of things may be quite harmless and unattended with symptoms. It is true that an extra strain is put upon all the muscular chambers of the heart, but we know from cases which have been quiescent and symptomless for many years that the lesion can be balanced by an increased development and some enhanced energy of the cardiac muscle. The cases do not present themselves till compensation is disturbed or some new phenomena have arisen. Such disturbance is manifested in different modes in different patients. In one there will be palpitation, irregularities of heart's action, oppression at præcordium, heaving impulse or troubles directly referred to the heart itself; in another difficulties of breathing, variable, but increased by exertion; in another dyspeptic ailments and the results of venous congestion of viscera; in a third the gradual oncome of dropsy. Or the failure of compensation may be first evidenced by an acute attack of inflammation of the lung. We find in such a patient pyrexia, dyspnœa, and the physical signs of a limited pneumonia. On examining the heart we obtain evidence of mitral regurgitation. Then the clinical history teaches us that the pneumonia presents characters which differentiate it from the forms which we observe in those who are not the subjects of cardiac disease. The outline of percussion dulness is clearly defined, often wedge-shaped; the signs indicate the density of a lung affected with croupous pneumonia, but not the extent of area involved in such a case. The sputum differs from the rusty viscid

[1] Read before the Harveian Society, February 18th.

material of ordinary pneumonia; it is frothy, and in many cases, having continued thus for a day or two, is suddenly found to be bright with florid blood. These signs indicate infarction of a branch of the pulmonary artery, and they may be the first sign which demonstrates to us the failure of compensation in cases of mitral regurgitation. In the enfeebled right heart coagula have formed, which, projected into the pulmonic arterioles, have given rise to the symptoms I have mentioned and to the appearances which, when discovered at the necropsy, have been in some cases designated pulmonary apoplexy. These, then, are among the signs which, when met with in a given case, announce to us that compensation is disturbed. We may have opportunities of watching the downward course: how the left ventricle becomes more and more dilated, how the right chambers yield also, and the venous system becomes engorged—a lesson, perhaps, pointed by the increasing size of the liver, as well as by distressing signs of dyspepsia; and then, how the over-dilated right ventricle permits regurgitation through the tricuspid orifice. This is a slight sketch of the occurrences when a heart affected with an imperfect mitral valve, permitting regurgitation through the mitral orifice, begins and continues to fail on account of the inadequacy of its muscle to overcome the difficulties. But these are by no means all the circumstances with which we may have to deal in any given case. There may be engrafted difficulties: the fires of the old endocarditis may be relighted, pericarditis may be manifested, and in both these conditions, I consider, myocarditis, which of course tends extremely to enfeeble the muscle, is in some degree an almost constant concomitant; or pleurisy, a frequent association with cardiac cases, may occur; or affections of other organs, especially the kidneys, may increase the dangers. Such are the difficulties which we are called upon to endeavour to overcome by treatment. Now, leaving all questions of general management, what are the special drugs on which we can rely?

1. *Digitalis.*—This is our first resource, and nearly all our patients are treated by it when faults of compensation are announced to us. There is yet some lingering of the old timidity which, regarding digitalis as a sedative and depressant of the heart, would withhold it when the heart is weak. Accurate investigation has shown that digitalis increases the force of the cardiac muscle and tends to cause the arterioles to contract, by a combination of these actions raising the blood-pressure within the arteries.[2] In a large majority of cases the careful administration of digitalis, combined with measures to promote a good general nutrition, when the early signs of imperfect compensation present themselves in cases of mitral regurgitation, is followed by such good results that it is unnecessary to seek for another agent. After a short period compensation may be restored, and then only general tonics and good dietary and management may suffice to maintain it. In a very considerable number of cases of mitral regurgitation, however, small doses of digitalis may be continued for long periods. My experience quite agrees with that of Dr. Broadbent, who says: "In mitral incompetence digitalis may be given almost indefinitely, and patients often take it for years with obvious advantage."[3] It is quite otherwise in mitral stenosis, as we shall see hereafter. What, then, are the drawbacks to digitalis? They are manifest even in the early stages of failing compensation in a minority of the cases of mitral regurgitation. With some patients the drug does not agree and cannot be made to agree. It may induce faintness and sickness. In children sometimes vomiting is induced, and it cannot be persevered with. In other cases, though these symptoms be not manifested, the drug, instead of increasing the force and decreasing the rate of the pulse, actually increases the feebleness and the rapidity. In some the drug, instead of acting as a diuretic, diminishes the quantity of urine excreted, and in a few instances there may be insomnia, restlessness, and nervous disturbance. These signs of intolerance of digitalis in cases of mitral regurgitation are rare, but they are sufficient to make us cautious. It is, I think, a good rule, and one that I always adopt, never to give an adult a larger dose than five minims of the tincture (or its equivalent in infusion or the powdered leaves) three times a day for a longer period than a week without my observation. Then, if tolerance is assured, the patient may continue to take the drug, or the dose may be continuously increased. It is to be remembered that the effects of digitalis may last longer than the period of its administration. Mr. Raven of Broadstairs has recorded the case of a woman aged sixty-seven, with dilatation of the left ventricle and anasarca, in whom fifteen minims of tincture of digitalis administered every four hours for five days induced diuresis and the relief of the anasarca, but symptoms of intolerance (nausea and vomiting) showing themselves, it was omitted, effervescing salines being substituted. The pulse, which had been quick, weak, and irregular, became slower, and ten days after the suspension of the digitalis it had fallen to 40 per minute.[4] It is in the later stages, however, that the failure of digitalis is most marked. Its power of increasing the force of the left ventricle seems to be gone; the right cavities continue to dilate, dropsy may be manifestly increasing, and yet the agent in all combinations with ordinary diuretics fails to increase the outflow of urine. Then we turn perforce to other agents, such as

2. *Caffeine.*—This is the highly nitrogenised crystalline principle, occurring in colourless silky needles, obtained from coffee, tea, or guarana, and existing in other vegetable products—e.g., the kola-nut. Caffeine is said to be a stimulant of the medulla and cardiac centres, to quicken the pulse and respiration, and to raise the blood-pressure when given in moderate doses. It may induce irregularity and intermittency of pulse; it is classed as a stimulant of the cardiac muscle. It acts as a diuretic, though not invariably so.[5] A large number of observers have testified to the beneficial effects of caffeine in various forms of cardiac disease, but there has been by no means a consensus as to its value and as to its mode of action. Francotte found that whilst caffeine increased neither the water nor the urea excreted in the urine in health, it had a pronounced diuretic action in cases of cardiac disease. Riegel of Giessen concluded that it produces the best effects of digitalis upon the circulation, that it is more rapid than digitalis in its action, is not cumulative, and may be administered to the feeblest person.[6] The following is the recent utterance of Professor Jaccoud. The effects of caffeine "are identical with those of digitalis; slowing of the heart pulsations; augmentation of its force of contraction; diuresis; no nauseous effects; no cumulative action. This drug, therefore, does not necessitate an incessant watchfulness. You can employ it in cardiac cases where the kidneys are affected."[7]

As to mode of administration. Pure caffeine is soluble in from 80 to 100 parts of water: its solubility is increased by acids. I have generally employed the citrate, which is freely soluble. It has been objected that this is a doubtful salt, but this objection is of small importance if the proportions of caffeine and citric acid used in its manufacture are definite, the only important function of the acid being to render the salt easy of solution. I employ it in from three-grain to five-grain doses, dissolved in the ordinary saline mixture—diluted liq. ammoniæ acetatis. The dose is generally administered three times in the day, but in some cases once only. Instead of the citrate, the pure caffeine may be employed, dissolved in solutions of benzoate or salicylate of sodium; in these it dissolves freely, and thus a concentrated solution may be made for hypodermic injection. The following is a good formula for internal administration: Pure caffeine and benzoate of sodium, of each one drachm; distilled water, six fluid ounces. Half an ounce contains five grains of pure caffeine.

(To be continued.)

Brunton: Text-book of Pharmacology, Therapeutics, &c., pp. 225, 235, and 913 (Macmillan and Co., London, 1885).

[3] International Journal of the Medical Sciences, Jan. 1886, p. 85.

[4] British Medical Journal, Nov. 24th, 1883, p. 1015.

[5] Brunton, loc. cit., p. 800.

[6] Vide Cassell's Year-book of Treatment for 1884, Dr. Mitchell Bruce's summary, p. 3.

[7] Cardiopathies. Semaine Médicale, Jan. 13th, 1886, p. 10.

LEEDS GENERAL INFIRMARY.—The annual meeting of the governors of and subscribers to this institution was held on the 1st inst. The number of in-patients admitted during the year was 4154, against 3807 in the preceding year, showing an increase of 347. The daily number of beds occupied was 250, against 230 in the preceding year, and the average duration of treatment of each patient was twenty-one days. The rate of mortality was 4·93 per cent., but, deducting forty-seven patients who died within forty-eight hours after admission, the percentage is reduced to 3·90. During the previous year the rates were 5·34 and 4·18 respectively. The number of out-patients admitted was 19,106, against 16,730 in the preceding year, showing an increase of 2376. The total amount of expenditure was £16,510.

SAVING CONDEMNED LIMBS.

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A SURGEON'S responsibilities are probably never more delicate and weighty than when he is called upon to review a decision to amputate a limb. To the cases elsewhere published,[1] in which, from inability to coincide with proposed amputations, I have successfully adopted measures to save limbs, brief notes of a more recent case may be added preliminary to comment.

In compliance with an urgent call into the country I visited a patient whose leg was to be amputated next day. I gathered from the medical attendant that a fracture through the right ankle had occurred about a fortnight previously; great swelling having supervened, a considerable number of leeches were applied, and then padded wooden splints. When these were removed, after four or five days' intense suffering, a large wound was exposed on the inner aspect of the limb, which was much swollen. Splints were then discontinued, carbolic acid lotion applied, and amputation advised after consultation with a hospital surgeon.

I found the limb from foot to knee greatly swollen and tense, of deep red colour, and exquisitely sensitive to the slightest touch. The skin, to the extent of several square inches over the tendo Achillis and on the outer part of the leg, threatened disorganisation; and on the inner side of the ankle was an irregularly shaped deeply excavated wound, measuring from side to side five inches and five-eighths, from above downwards three inches and seven-eighths, and seemingly penetrating in its depressed centre into the ankle-joint. The patient's constitutional state was sound, but pain and want of sleep had produced considerable exhaustion. Unable to concur in the proposed amputation, I advised twenty-four hours' delay to test the effect of the treatment which I proceeded to carry out. Carefully supporting the limb, I raised the foot and placed on the outer side, from the lower third of the thigh downwards, a double millboard splint, gummed, and padded three inches thick with dry absorbent gauze and cotton tissue. The splint embraced the sole of the foot which, as well as the whole inner side of the limb, was padded with equally thick and perfectly smooth folds of the tissue. The whole was now smoothly bandaged with long spirals and without reverses, and with equable but decided pressure. Four six yard bandages were used. The limb was then placed on the outer side in a swing, and I visited the patient with the medical attendant the next day. Pain had been much less, and the loosened bandages denoted great subsidence in the swelling. Taking the limb out of the swing, the bandages on the inner aspect were cut, and the absorbent tissue, soaked with a great quantity of matter, removed; but the millboard splint on the *outer* side was not touched for some days. The skin was paler and much less sensitive and tense. The same dressing was repeated on the following three days. The improvement locally and constitutionally was then so marked that the question of amputation was not reopened; and henceforward the dressing was only renewed every other day. A considerable slough separated from over the tendo Achillis and the outer part of the leg, and the absorbent tissue before application was lightly sprinkled with some of the following lotion: Four grains of sulphate of zinc, half an ounce of methylated spirits of wine, one ounce of glycerine, and one ounce of water. The wound surface was occasionally touched with solid sulphate of copper. The dense deposit in the leg above the wound softened and gave evidence of subcutaneous pus, which was carried off by drainage-tubes, one of which was passed several inches up the inner side of the leg, by corkscrew movement, from beneath the upper edge of the wound. Another tube was introduced through a small incision just outside the middle of the tibia. The outer ends of the drainage-tubes were made to project out of the dressings into a tin tray containing dry earth, which could be changed whenever necessary. The more perfectly to immobilise the foot and ankle, a bracket millboard splint was secured on the outer side, so as to embrace the leg just below the calf, and also the outer edge of the foot. Later on, gummed millboard splints were placed on the inner and posterior aspects; and it may give some idea of the amount of padding to state that at each dressing half a pound of the absorbent gauze and cotton tissue was used. For the first six weeks the dressing was renewed every other day, after that on Mondays and Thursdays. The patient left her bed for the couch at the end of two months; in another fortnight she removed downstairs, and then the wound on the inner side of the ankle was solidly healed, with fair and steadily improving movement in the joint.

The recovery of the limb was due to a variety of agencies, chief amongst which were immobility, position, pressure, infrequent and dry dressings, with drainage by absorbent tissue glycerine and tubes. It was remarkable how the very tender limb, which at first could scarcely bear the lightest touch, became comfortable under equable elastic pressure, physiological position, and absolute rest. I have elsewhere[2] recorded a case in which a patient with a tender swollen leg, similarly treated, spontaneously expressed himself in these words: "It is wonderful how I can bear the limb handled now, and I could not stand a feather touching it last night." Glycerine in such cases acts as an antiputrescent, and by its great affinity for water powerfully aids absorbent tissues in securing perfect surface drainage, and keeping parts clean and sweet without the use of water. The plan of wound treatment, based on physiological principles, which I have enjoyed the frequent privilege of illustrating in these columns, was strikingly exemplified in the case above related. The limb was in such a condition that it was impossible to foretell its recovery with certainty, and it was only by the utmost care at every dressing that the result was attained. But I was from the first hopeful. In a large proportion of cases in hospital and private practice in which I have been called upon to amputate, I have not touched the knife and have spared the limb. A clear conception of physical and physiological principles, unprejudiced application and combination of therapeutic resources according to the circumstances of particular cases, gentle yet firm, painstaking yet not meddlesome, manipulation, are very powerful agencies in saving condemned limbs.

Birmingham.

[1] Case 49, p. 133, Case 51, p. 137, Case 63, p. 171, Case 84, p. 228, in Treatment of Wounds and Fractures, by the author, second edition. Churchills.

ON A

CAUSE OF UTERINE DISPLACEMENT, NOT HITHERTO MENTIONED, CONTRAINDICATING THE USE OF PESSARIES.

BY J. BRAXTON HICKS, M.D. LOND., F.R.S., F.R.C.P.,
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I WRITE subject to correction, but I believe the cause about to be mentioned of uterine displacement and flexion has not been remarked upon, and yet it is not so very rare. Briefly stated, the concavity of the abdominal walls, noticeable in many spare women, will not permit the uterus to take its proper position in the pelvis, but, acting chiefly through the agency of the bladder more or less upon its fundus, pushes this portion back towards the promontory of the sacrum in a much more marked manner than occurs in a normal state, ending in flexion if the uterus be soft and its attachments to the front of the pelvis fairly firm. Again, if the uterus be tied by adhesions, or be already anteverted more than usual, then this condition is still more increased, and the bladder, unable wholly to rise above the uterus, expands by one arm of its Y-shaped cavity in its empty state above it, thus pressing the fundus down, and the other arm distending beneath the uterus tends to increase the anteversion, pushing up the lower end, thus increasing in two ways the anteversion. So that if the catheter be passed the fundus will be found projecting into the back of the bladder and closely opposite to the sphincter, preventing it easily entering, while it readily passes above and below to the full extent, and thus the functions of the bladder are materially interfered with. As most of these cases occur in single women, the uterus is generally held to the pubic segment of the pelvic floor

[2] Wounds and Fractures, p. 187.

fairly firmly; but in those who have been delivered the laxity of these front attachments permits the bladder to push the uterus backwards and downwards, so as to bring the back of the uterus in close contact with the anterior wall of the rectum.

In books of anatomy and obstetrics it is stated that the fundus of the uterus reaches to the level of the upper edge of the pubes. This may be taken as generally correct, though from clinical observation I should be inclined to say that it not infrequently rises a little above the plane of the conjugate. The abdominal walls, springing from the edge of the pubes, curve rather forward, and thus do not interfere with the distension of the bladder, at least not to any great extent; nor in the empty state of the bladder with the position of the uterus of normal anteversion; though when the bladder is full it retroposes the uterus towards the sacral promontory. In the condition, however, of the abdomen walls above alluded to, and described in my paper on Abdominal Tension[1]—namely, of extreme retraction,—the walls become concave and are in close contact with the brim nearly throughout, in some cases resting nearly closely on the anterior surface of the iliacus and psoas, pressing to a not unimportant extent the viscera, &c. And thus it will readily be understood how that, as the bladder is being distended, unable to rise upwards, it pushes the uterus back to a degree to be measured by the difference of distance between the present incurved line of the inner surface of the walls and their former normal state. The uterus thus in course of time assumes a position with its axis approaching that of the conjugate of the middle of the pelvic cavity, the os in the retroposed position being somewhat apparently elevated, but pointing forwards, except when, to a certain extent, it becomes flexed. There is not much space between the rectum and the back of the uterus, and when fæces accumulate, as they are apt to do in this starved state of the system, they are more or less closely in contact. As I have pointed out, the pressure the walls exert is considerable—some of it due, as it appears to me, to a kind of permanent contraction of the muscles. This retraction of the walls could not take place without the absence of gas in the intestines; possibly the more solid contact of the inner face of the walls against the firm structures behind sets up a kind of chronic spasmodic state.

I am inclined to think that the uterine dartoid-like attachments are in a state of irritability also. That they are at times capable of this action I have no doubt, and this serves to explain the varying opinions of those who have seen the same case at different times, and it has its parallel in the action of the homologous dartoid tissue which causes retraction of the testicle. That all this can occur without some sort of uneasiness would be wonderful, and this it is which leads the patient to seek medical aid. Generally the patient is of a neurotic temperament, ill nourished, badly feeding, and much complaining; nor is this perhaps to be wondered at, seeing that owing to this incurved state and pressure the abdominal viscera are displaced and interfered with in their movements and functions, thus producing uneasiness, often visible on the face. Accordingly the medical attendant necessarily finds it a difficult task to determine whether the ailment had originated in the uterus, as a cause of reflex bad appetite and nausea, or not. If the pelvic region is much complained of, or if the medical man is over-intent on uterine maladies, he would very possibly be led to examine the uterus, and, finding the organ out of place, might be led to think this the prime cause, and to attempt to correct the displacements by mechanical means. Again, if the digestive organs were most complained of, the cause of the pelvic distress might be overlooked, or attributed to ovarian irritation, or to the constipation, to neuroses, or to fancy. Supposing, then, that in the course of treatment attempts are made by the medical man to correct the position of the uterus by pessaries, the same forces which pushed the uterus into that position he will find now to resist his efforts, and although he may be able to restore the organ in part and get the pessary into place, he will find it will not—as it cannot, indeed—properly act, and that the patient, instead of being relieved, is more uncomfortable.

The same remarks apply to both conditions whether retroversion or anteversion: so long as the abdominal walls remain in the same incurved state above described, it is difficult in most cases to elevate permanently the fundus; indeed, all attempts generally increase the distress, and the uterus shortly regains its former position.[2] In this retracted condition of the walls, the ovaries also along with the uterus suffer from the pressure and restraint of free movement, without which none of the viscera can work painlessly and perfectly; but when pessaries are employed, these are almost certain to be brought in contact with the ovaries, and consequently much distress is felt; and this is naturally most severe when rigid pessaries are used, such as are made of vulcanite, coralline, or metal—the kinds most likely to be used in these difficult cases. In some of these cases, it is probable that the uterus was already retroposed or anteposed—i.e., before the retracted state of the walls occurred; but the clinical aspect of the case is the same whatever the order of arrival. From a survey of this state of things I think it will be conceded that the uterus has assumed the position of neutrality to the forces existing about it, and that the treatment should rather be directed to remove these abnormal forces than to drive the uterus in antagonism to them, and thus place it, as it were, between the upper and nether millstone.

[1] Medical Society's Proceedings, 1884.

[2] It may be wise in some cases of anteversion to try if any benefit may be derived from retroposing the uterus; but this should be done by a sound rather than by a pessary.

SEPARATION OF THE EPIPHYSIS OF THE CAPUT FEMORIS.

BY NOBLE SMITH, F.R.C.S. EDIN.,
SURGEON TO THE ALL SAINTS CHILDREN'S HOSPITAL.

THIS accident is doubtless extremely rare; in fact, the symptoms that were present in the few supposed cases that have been recorded were not sufficiently characteristic to be accepted as absolute proof of the nature of the cases. The subject is referred to in the third edition of Holmes's System of Surgery thus:—"Several supposed examples of this accident," writes Mr. Henry Morris, "have been recorded, but I agree with Mr. Holmes in thinking that they are not conclusive as to the real existence of this lesion." Mr. Morris refers to two cases.[3] Hamilton describes these and two other supposed cases, but does not consider any of them as proved.[4] The following, I believe, will be considered a clear instance of this lesion.

A delicate young lady, aged seventeen, nearly fell while walking on wet board boards, the right leg slipping outwards and forwards. She recovered herself, but felt severe pain, chiefly in the knee, but also in the region of the hip-joint. There was intense pain at the back of the knee-joint, which afterwards became more general. The pain in the hip soon decreased. A provincial surgeon of considerable experience, who saw the case, could detect no shortening of the limb, but the toes inclined outwards at about 30° from the vertical. The pain was referred to a spot just below Poupart's ligament. With perfect rest in bed the pain continued to lessen, and the patient was able to make some voluntary movements of the limb. The surgeon diagnosed "severe strain" of the femoral muscles from violent external rotation of the limb, with probably some rupture of the capsular ligament. About five weeks before this accident, the patient strained the right knee in walking quickly. With rest, this strain had apparently been recovered from, but it had probably left the muscles weak, and had thus contributed to the second and more severe accident.

When I saw the case on October 9th, 1885, eleven weeks had elapsed since the second accident. She had remained at rest in bed for three weeks, when, as the pain had ceased, she endeavoured to get up, but it was found that the right leg was quite useless. I found the leg measured in its length an inch and a quarter shorter than the other. Measured from the top of the trochanter to Bryant's line (a plan more convenient than Nélaton's for such a purpose), the same difference existed between the two sides. The right trochanter was slightly prominent laterally to an extent not greater than a quarter of an inch. The foot was rotated outwards to the extent of 50°; whilst in the recumbent position she could flex the thigh to an angle of 45° with the straight line of the body, without moving the pelvis. The leg was utterly useless to her for standing,

[3] South's "Chelius," vol. i., p. 505; and Post, New York Journal of Medicine, vol. iii., p. 190.

[4] Fractures and Dislocations, 4th edition.

as it would support no weight in this position. When the patient was placed on her side she could extend the thigh almost completely. When I attempted to rotate the thigh inwards, the toes could be turned an inch towards the vertical, but no further rotation could be effected without moving the pelvis. There was complete absence of pain in the hip when these movements were made.

The opinion which I formed of the case was as follows:—The first slight accident caused a sprain of the muscles surrounding the hip-joint, leaving them somewhat weak and favouring injury to the joint. At the time of the second accident, when the patient stumbled, the leg slipped outwards and forwards. Upon this latter occasion I believe the epiphysis was separated from the shaft, but was kept in position by the capsule, as occurs in intra-capsular fracture, and subsequently the bone became displaced by muscular action. It will not, I think, be doubted that the head of the bone was separated from the shaft. The trochanter being an inch and a quarter higher than that of the opposite limb, and the two trochanters on the same level with the front of the body, although the right one was rotated out while the left was held with the foot vertical, indicated one of two conditions: either the head of the femur must have been dislocated from the acetabulum, or, if it remained in its place, it must have been separated from the shaft. If it had been dislocated the head must have been discovered in the displaced position. In rotation outwards of a thigh the trochanter is naturally carried backwards, but here the trochanter was level with the other, and therefore the head of the bone would have been very prominent had there been dislocation. There was no sign of it. Assuming that the head of the bone was separated from the shaft, its production by disease of the joint was contra-indicated by the history, the symptoms, and the result of treatment.

Treatment.—The patient being placed under the influence of ether, I was able to flex the thigh upon the body nearly to a right angle. The movement of the joint in all directions was more free than before. While in a flexed position I applied manual traction to the thigh, rotated inwards, and brought the limb down to a straight line with the body. Very moderate force was required; a cartilaginous grating was felt to occur in the joint as the leg was brought down. It was thus placed in a position which was perfectly natural, except a very slight degree of shortening, certainly less than a quarter of an inch. The limb was fixed with a Liston's long splint, and kept so for six weeks. The joint was then found to be firm, but very restricted in movement—one may, in fact, call it anchylosed. The patient was allowed to move about with crutches for twenty-five days, using the foot slightly. She then discarded the crutches, and has since walked about comfortably. A mechanical support from the boot to the thigh and pelvis has been worn, and will be continued for a few months longer. The fixation of the joint might probably be relieved by forced movements; but I have thought it prudent to defer any such attempt until ample time has been allowed for repair to take place.

As an example of a rare if not unique accident, this case must be of interest. The result of treatment will also probably be considered fortunate, for the leg had been a useless appendage for eleven weeks before the reduction was effected.

Queen Anne-street, W.

A CASE OF
PROLONGED RIGOR IN AN EPILEPTIC.
WITH REMARKS.

By J. HARRINGTON DOUTY,
DEPUTY MEDICAL SUPERINTENDENT, WORCESTER COUNTY ASYLUM.

H. B——, aged seventy-five; epileptic since an apoplexy two years and a half ago; dementia. I was called the other day to see this patient, who was said by the charge nurse of the hospital ward to be in a rigor. The following note describes briefly the symptoms which presented themselves:—She was shivering from head to foot, like one who was in the early stage of an acute febrile illness; her teeth chattered violently; the skin was pale and in a state of "cutis anserina"; her face wore an expression of distress and anxiety; she groaned at times and complained of violent pain "down the back," and said now and then in a stammering way, "Oh, so cold, so cold!" It was impossible to count her pulse or hear her heart-sounds. Respirations were 36. As each breath was drawn the shivering became more violent up to the end of inspiration; the inspiration was noisy, and ended prematurely with a jerky closure of the vocal cords; during each expiration there was a slight but distinct quieting down of the convulsions. The temperature, taken carefully in the axilla, was 98·4°. She was as conscious as she ever is, and, though in a slow stammering way, answered one's questions pretty well. The rigor went on without intermission, the spasmodic muscular contractions which constituted the shivering becoming gradually more severe, and the skin colder and of a blue tint. Twenty-five minutes from the onset of the rigor the patient became unconscious, and a violent epileptic "fit" occurred, the tonic stage of which was absent; a comatose condition followed lasting for twenty minutes, after which the patient resumed her usual state, though of course she was much prostrated. The temperature throughout was at the normal.

Remarks.—Amongst the almost innumerable phenomena which usher in epileptic seizures, an aura such as this, presenting all the subjective and objective symptoms (excepting pyrexia) of an ordinary rigor would seem to be rare. In this case the stage of "contraction of the facial," which usually precedes that of the "cerebral vessels," seems to have been exaggerated; the spasm spread over the whole cutaneous vascular system, and hence the subjective "cold" and the complete rigor. It was interesting to note that the tonic stage of the fit was absent; probably the muscles were too much exhausted by the twenty-five minutes' duration of the rigor to develop any strong tonic spasm. The "fit," however, was distinctly separable from the rigor, the patient suddenly becoming unconscious, and the spasms of the rigor developing into clonic convulsions of a very severe type. The case is of some interest, too, when viewed in the light of a further testimony to the close pathological analogy between the two phenomena ordinarily distinguished by the names "rigor" and "convulsion."

Powick.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

WESTMINSTER HOSPITAL.
SMALL-CELLED SARCOMA OF THE FEMUR; AMPUTATION AT THE HIP-JOINT; RECOVERY.

(Under the care of Mr. G. COWELL.)

THE following case would appear to be one in which a sarcoma of the femur developed after, and apparently as the result of, a slight injury to the thigh, forming an example of what has been described as "acute traumatic malignancy." In THE LANCET for 1885, vol. ii., p. 1035, there is an excellent paper by Mr. Pearce Gould on "Sarcoma of Bone rapidly following Injury," and we would refer our readers to that for information on the subject, which is ably discussed. It would hardly be possible to get a better result than was obtained in this case by the employment of Davy's lever, the amount of blood lost during the operation being excessively small. The author of the paper to which we have referred prefers a modification of Furneaux Jordan's operation in such cases, performing a circular amputation of the thigh, securing the vessels, and then completing the operation by an incision along the outer side, through which the bone is disarticulated.

The following notes are furnished by Mr. Walter Arthur, surgical registrar.

H. H——, aged ten years, a schoolboy, was admitted on Oct. 21st, 1885, into Northumberland ward. The patient was a well-nourished boy, but of strumous appearance. He had had no previous illness. Both his grandparents are living and healthy; his father, who is a painter, is suffering

from lead palsy; his mother is in good health. The boy has two brothers and one sister living, all of whom are strong and well; two brothers died young, but the cause of their death cannot be ascertained. On May 25th last the patient was sliding down some steps, when he fell down the last two, hurting the outer side of his left leg, about the middle, the skin being abraded. The following week a swelling was noticed at the lower and inner part of the left thigh. It became hot and painful, and rapidly increased in size.

On admission, a large tumour was found occupying the lower third of the inner side of the left thigh. It was rounded, smooth, and semi-elastic, and the skin covering it was tense. It was quite immovable, and seemed firmly attached to the bone, and was hot and at times painful. The knee-joint was not involved, and contained no effusion. There was no enlargement of the lymphatic glands.

On October 27th the patient was put under the influence of chloroform, and amputation at the hip-joint performed. The vessels were ligatured, and the well-rounded anterior and posterior flaps were brought together with silver wire sutures. The operation was strictly antiseptic. The external iliac artery was controlled by Mr. Richard Davy with his rectal lever, the patient losing only three ounces of blood.

Oct 28th.—The patient passed a fairly good night after the operation. There is some pain in the stump and slight headache. Pulse 110; temperature 101°.

29th.—The stump was dressed, on account of some signs of the discharge having come through. The wound looked quite healthy. The patient's general condition was good. The temperature ranged between 98·4° and 102°.

Nov. 4th.—The wound is healthy and healing, and there is little discharge. The drainage-tube was removed on the 2nd. The patient's appetite is good, and he is otherwise progressing favourably. Since the last note the temperature has ranged between 98·4° and 101·4°.

7th.—The boy is improving and the wound healing; there is rather more discharge to-day, but it is quite sweet. The temperature is normal.

16th.—The wound has nearly healed, and the patient is convalescent.

Mr. Cowell described the case as one of rapidly-growing sarcoma of the femur after injury, and called attention to the frequency with which this disease occurs in children from apparently trivial injuries. Removal of the whole of the implicated bone was necessary for the eradication of the disease. On subsequently examining the growth, it was found to be firmly attached to the bone and encapsuled by the periosteum. Nodules of the disease were found in the medulla of the bone through the whole of the diaphysis; the epiphyses were not involved. The microscopic examination showed a small-celled sarcoma.

ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

TRAUMATIC RUPTURE OF URETHRA; PERINEAL SECTION; COMPLETE RECOVERY; REMARKS.

(Under the care of Mr. W. C. BARNISH.)

FOR the following notes we are indebted to Mr. John Buchanan, house-surgeon.

Patrick C—— was admitted into this hospital at 7 A.M. on Sunday morning, Sept. 20th, 1885. At 7 P.M. the previous evening, while standing with his legs extended between two halves of a counter in a public-house, he was caught on the foot by one of his comrades causing him to come down straddle on the counter door. He had much pain immediately after the accident; no blood came by the urethra, but an hour afterwards he found himself unable to pass urine. He returned home and went to bed, and in a few hours became so ill, with inability to micturate and intense pain, that he called in one of the medical men of the town at 4 A.M. Some blood had come from the urethra by this time. Unsuccessful attempts were made to pass a catheter, and blood poured freely from the urethra at each trial. Aspiration above the pubes was performed, with consequent relief, and his removal to hospital ordered.

On admission, attempts were again made to pass a catheter, but as profuse hæmorrhage was easily set up they were not persisted in. The point could be felt grating in the tissues. A hot bath was of no avail. A hypodermic injection of morphia was administered, and the man lay quiet and comfortable during the day. Towards evening the bladder became distended, and at 7 P.M. dulness was within an inch of the umbilicus. Temperature 98·8°. Man feeling very ill. An enema of soap and turpentine was ordered, which acted copiously immediately, but gave no relief. Considerable hæmorrhage continuing from urethra. At 9 P.M. the patient was put on the operating table, chloroform administered, and perineal section performed by Mr. Barnish. A grooved staff was passed down the urethra to the seat of obstruction, and the point could be felt in the perineum just behind the scrotum, with the left forefinger in the rectum, Mr. Barnish plunged his knife in the middle line immediately in front of it, and cut towards the centre of the perineum. With the finger in the wound the point of the staff could be felt, covered with tissue, and with a little dissection it was cleared. With some difficulty the opening of the urethra towards the bladder was found, and a celluloid catheter passed in. The staff was now removed, and a gum-elastic catheter with boule point passed down the urethra from the meatus and out at the wound. It was then curved on itself and passed in from the wound to the bladder, the celluloid catheter being first removed. The catheter was now tied in position, the wound plugged with oiled lint, and the patient removed to a separate ward.

Sept. 21st.—9 A.M.: Patient comfortable; slept most of the night without any narcotic. Only a little bleeding from the wound; plug removed. Urine passing freely by catheter. No sickness. Temperature 101·2°. A pad was applied to the wound.

22nd.—Spent a good night; no pain; no hæmorrhage. Communication through catheter free. On introducing the finger gently into the wound the catheter can be felt exposed for about an inch.

23rd.—A drop of pus at the wound and at the meatus. Bowels rather relaxed.—7 P.M.: Patient very ill; tube blocked. Temperature 102·8°, and a blush over the scrotum. A large water dressing applied.

24th.—Blush gone; patient feels well.

28th.—Tube blocked; patient very ill in a short time. Cleared, and the patient felt well in a few hours. Urine very gritty; acid mixture injected into bladder. Much pus per urethram. Tube again blocked and cleared; urine much the same.

30th.—Urine much clearer than two days ago.

Oct. 2nd.—Up to this time only a little urine had come by the wound at intervals, and at 10 A.M. to-day the catheter was removed. The removal caused considerable pain, as the bulbous point was thickly coated with phosphates. An ordinary metal catheter (No. 10) was now passed regularly three times in the twenty-four hours for a few days.

6th.—Passed urine himself, and in a good stream.

8th.—A double-barrelled catheter (No. 11) was now passed twice daily, and the bladder washed out with an acid solution. From this time the patient made an uninterrupted recovery.

19th to 29th.—No urine came by the wound. He passes a good stream. Catheter passed daily. Patient regarded as convalescent; sits up most of day; greatly weakened by the process, and has lost much flesh.

30th.—Patient discharged.

Nov. 5th.—From Oct. 29th till to-day a little urine has come each day by the wound, but none since, and patient has resumed work.

20th.—Attends twice a week to have a No. 12 catheter passed, which is accomplished without the slightest difficulty; he is now to attend once a week.

Dec. 14th.—Wound remains perfectly closed, and patient feels very much the same as before the accident.

Remarks by Mr. BARNISH.—This is another of those cases which show the necessity of decided measures being taken early in instances of this serious accident—traumatic rupture of the urethra; and the completeness of the cure in the comparatively short space of time in this case shows the confidence with which perineal section may be adopted. There is the question whether, when the urethra is opened from the perineum, it is better to pass a catheter in from the wound into the bladder and let the urine drain by the perineum, or to pass it down from the meatus, as was done in this case. In this case the latter method acted so well that we may safely adopt it again in a similar one. The ease with which the soft flexible catheter *à boule* (Weiss's best) was borne was very noticeable, compared to what is the general experi-

ence of keeping in a metal instrument. The method secures the patency of both ends of the urethra towards the wound, and the opening of the prostatic portion of the urethra into the wound is probably much more easily found with the point of a flexible instrument curved upon itself than with the point of a solid instrument which has passed through the penile portion. The necessity of keeping the catheter from becoming blocked by passing a stilette every day, or every second day, cannot be too much insisted on, as was seen by the rapidity with which the man became seriously ill when this occurred, and that this was the sole cause was evident from the equal rapidity with which he was restored to comfort as soon as it was cleared. In the twelve days in which this catheter was retained it had not corroded or altered in structure so as to obstruct its patency (it became blocked with the gritty matter from the bladder), or to cause any fear of danger from the end dropping off into the bladder. In another case, however, I should not be disposed to leave it so long, as the deposit of phosphates on the boule caused considerable pain on extraction, probably even adding somewhat to the laceration of the urethra.

ROYAL UNITED HOSPITAL, BATH.

A CASE OF EXCISION OF THE RECTUM FOR SCIRRHOUS CANCER; RECOVERY; REMARKS.

(Under the care of Mr. H. W. FREEMAN.)

THE notes of this man's history were supplied by Mr. G. Helps, house-surgeon.

J. H——, aged forty-seven, a warehouseman, applied at the hospital on Aug. 26th, 1885, to get relief from piles. He stated that some small piles externally had troubled him a little for three years, but that he was in his usual good health, passing daily solid full-sized motions until three months since, when he began to get uneasy "about his seat," passed slimy stools with some blood, his bladder also became irritable, and he lost his appetite and became visibly thinner. No family history of malignant disease could be made out. He was one of five children, all healthy; and both parents were alive and well. Had always lived a steady life, and had never had syphilis.

On digital examination of the rectum, a hard, nodular, ulcerating growth was felt, commencing half an inch above, but *not* involving the sphincter, and extending for two inches and three-quarters vertically upwards along the long axis of the gut. It seemed to encircle the bowel annularly, except for an inch anteriorly, contiguous to the prostate, and this was smooth and quite free of disease; the bulk of the growth was felt to be placed chiefly posteriorly, and on the right lateral aspect, where it was very thickened and markedly adherent to the deeper structures. The growth, however, moved freely enough elsewhere, and the tip of the index-finger could be carried well beyond the upper margin. The case was thought to be an excellent one for excision, and the patient declared for the operation. Accordingly, on Sept. 2nd he was placed under ether, and a No. 10 silver catheter passed into the bladder and held there. Mr. Freeman then passed a curved, sharp-pointed bistoury, guided by the finger, well above the upper margin of the growth in the posterior wall of the bowel, plunged it backwards, bringing out the point at the tip of the coccyx in the middle line, thus making the triangular incision of Denonvilliers. Then with a small pair of Gardiner's straight, probe-pointed scissors he cut through the marginal union of skin and mucous membrane all round the sphincter, except for an inch in front, and with the finger and scissors the bowel was gradually separated from the levator ani and deep fascia, from behind forwards, until that portion of the bowel was reached adjacent to the prostate, where about one inch was found smooth and free. This was not separated, but was cut out and left *in situ*. A strong clamp was placed on the highest part of the growth when well drawn down and cut through with scissors. Portions of remaining growth were well searched for, and all suspicious particles removed. The peritoneum was not seen. All vessels were tied or twisted, but the hæmorrhage was of a trifling character throughout. Hot water was injected, and carbolised sponges soaked in Friar's balsam plugged the wound completely. An eight-inch gum-elastic vaginal tube was passed between these sponges into the cut orifice of the bowel above and retained. No attempt to bring the bowel and edges of the wound together was made, and a T-bandage was applied to make secure.

The patient was considerably collapsed for three or four hours after the operation; but he rallied during the evening and took brandy-and-water, had one-sixth of a grain of morphia injected hypodermically, and passed a fair night. The sponges were all removed on the following morning, the tube retained, and the huge ischio-rectal cavity was washed out with Condy's fluid lotion, repeated every four hours, with a couple of ounces of eucalyptus oil (1 in 10) injected subsequently to keep sweet. His bladder was troublesome for four or five days, but it subsided without treatment and gave no trouble afterwards. He passed enormous quantities of flatus through the tube, with great relief, and the first fæcal evacuation took place on the fourth day. The seventh day after the operation his temperature, which had never been above 101° at night, fell to normal, and, complaining of sweating, he was given Schacht's cinchona for his apparent exhaustion and cascara sagrada to keep his stools soft. He seemed to be doing well in every way, the wound suppurating freely and healthily, until the twenty-first day after the operation, when he felt chilly, his temperature rose to 104·6°, followed by a rigor, and the following morning a blush was seen about the margin of the wound and cellulitis spreading upwards into the ischio-rectal cavity. This condition gave rise to considerable anxiety, but the washings of the wound were more frequently repeated, large doses of quinine and perchloride of iron being given periodically, and in ten days the temperature became again normal, the healthy discharge supervened, and he progressed towards recovery without any further drawbacks. The tube was withdrawn on the eighteenth day after the operation, and by the aid of a Trouvé's electric light it was interesting to see, from time to time, how the healthy margin of intestine seemed to be growing downwards towards the external orifice, which contracted rapidly. He was kept in hospital for observation until Dec. 19th, when he desired to be discharged, looked well and putting on flesh. The cicatrised external orifice at this time was cartilaginous, gristly to the touch, and admitted the index-finger, and he had some considerable control over his fæces. He came again in three weeks after his discharge, and his condition was satisfactory. The microscope showed undoubted scirrhus.

Remarks by Mr. FREEMAN.—The case on careful examination was thought to be one specially adapted for excision, because the upper margin of the growth could be easily reached with the finger. It was readily movable; the adhesions were partial, and chiefly to the levator ani of the right side. The growth also was in its infancy, and but little constitutional effect was apparent. The key of the operation seemed to hinge on the free posterior incision as practised by Denonvilliers, as we get immediate control over the bowel and but little hæmorrhage, and this man did not lose more than a couple of ounces of blood from beginning to end. The separation of the gut from the surrounding tissues seemed easy enough in this early stage, and although at the time it seemed right to leave the healthy portion of bowel anteriorly, I regret it now, notwithstanding its freedom from disease. To do excision at all, I believe it should be done completely, and the whole calibre of the bowel removed, and to this course I see Volkmann assents. The touch does not seem to me sufficient to guarantee the absolute immunity of a part, and time will show here how far the remaining portion of bowel should or should not have been removed. The disease did not reach within a full half-inch of the sphincter, and extended upwards two inches and three-quarters, its longest diameter being annular, as usually found. It is interesting to speculate how far embryonic development will explain the locality of malignant disease of the rectum. The tucking in of the anal invagination of the epiblast for about two inches to two inches and three-quarters extends upwards to meet the hypoblastic part of the hind gut, and goes to form the so-called "proctodæum," and here a faint white line can be sometimes discerned, and here the disease is usually found to begin spreading out mostly in a circle. Much the same thing is found in cancer of the throat; the stricture is usually at the white line there—the so-called "stomodæum." Free granulations probably absorb, and the cellulitis that ensued was the result of contagion conveyed by the hands of the nurse who washed out the parts, as she was known to have daily dressed a phlegmonous case of erysipelas in another

ward. The patient derived great comfort from the tube in the rectum, as it conveyed off collected flatus, and it was useful to wash out high up the chasm. His stools were kept soft with cascara sagrada and glycerine. The purulent discharge was enormous, but after the septicæmic intoxication had passed away he took his food and stimulants well, and he did not again look behind him. He has been desired to come up for inspection from time to time so as to keep a good look out on the cartilaginous contracted anus.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Trabeculated Skull in Infants.—Diffused Symmetrical Pulmonary Cirrhosis.—Lympho-sarcoma of Stomach.—Cylindroma of Palate.—Ante-mortem Digestion (?) of Stomach.—Congenital Adeno-sarcoma of Kidney.

AN ordinary meeting of this Society was held on Tuesday last, Dr. J. S. Bristowe, F.R.S., President, in the chair.

Dr. GOODHART showed a Trabeculated Skull from an infant aged six months, who had also a spina bifida. It died as the result of injection of Morton's fluid. On the inner aspect the calvaria presented a number of ridges or arches of bone with membranous opercula or thin plates of bone between. The relation of this condition to craniotabes was mooted. There was no evidence of congenital syphilis or rickets. It was probably better to regard it as a malformation, another condition of skull to that of craniotabes.—Dr. HALE WHITE gave an account of a trabeculated skull in an infant. The patient, a child three months old, was admitted into Guy's Hospital for a large congenital tumour projecting upwards from the anterior half of the head. It was tapped and cerebro-spinal fluid drawn off, but the child gradually sank and died. At the necropsy the following condition was observed:—There was a transverse depression across the skull from ear to ear; the frontal bones were widely separated; their opposite borders were indented; the interval was filled up by membrane. The other bones of the skull were so firmly united that in some places the sutures could hardly be made out. The two parietal bones were close together. The bones of the base were normal, but all the bones of the vertex were remarkably thin, being about the thickness of egg-shell. The parietal and that part of the occipital in front of the foramen magnum for the most part retained their membranous condition, but going across the membrane in all directions were trabeculæ of osseous tissue; the average width of these was one-sixth of an inch, and they formed sharp prominent ridges on the interior of the skull. The smallest trabeculæ were the merest sprinkling of osseous substance in the membrane, which was thus cut up into a number of areas, some rounded, some polygonal, and varying in size from a mere point to a threepenny-piece. The dura mater followed these ridges accurately. Seen from the exterior, the transparent membranous areæ bounded by trabeculæ were very evident, but there were no ridges. On the petrous portion of the temporal bone the superior and posterior semicircular canals were most evident. There was no flattening of the convolutions of the brain, the ventricles were not dilated, and it was impossible to say whence the fluid which was drawn off came, and also to say what was the cause of this peculiar condition of skull.—Mr. SHATTOCK had seen similar specimens. In one instance there was spina bifida, followed by hydrocephalus. He explained the appearance as a result of atrophy resulting from internal pressure; the bone between the convolutions being left.—Dr. DYCE DUCKWORTH related a case of chronic hydrocephalus which presented a typical example of cranio-tabes.—Mr. R. W. PARKER said that Bednär had described congenital membranous holes in the skull. He had seen cranio-tabetic conditions in cases of hydrocephalus. With the original opinion of Elsässer he agreed, that rickets in suckling infants gave rise to cranio-tabes.—Dr. J. S. BRISTOWE believed that the fluid must have been in the ventricles.—Dr. GOODHART, in reply, said in his case there was no hydrocephalus. In hydrocephalus he had seen something like it, but not the same condition. It appeared to him as though the bone were forming in the membrane and making its way inwards.—Dr. HALE WHITE could not admit that internal pressure would give rise to this special condition.

Dr. PERCY KIDD read notes of a case of Diffused Symmetrical Cirrhosis of Lungs, which occurred in a woman aged thirty-seven, in whom expectoration, short breath, cough, anasarca, pains in the chest and back, loss of appetite, enlargement of the right side of the heart, and dulness about the right apex and both sides behind, with albuminuria and scanty urine, were the chief clinical features. The heart was hypertrophied, and weighed seventeen ounces and a half. On section of the lungs, dry, deep-red, branching fibroid strands, perfectly symmetrical, pervaded all parts; irregular nodular patches were also to be seen, probably the transverse sections of the branching bands; there was no special thickening of the interlobar septa. In the left upper lobe a mortary mass was discovered, and elsewhere a few caseous nodules. The mediastinal glands were large, tough, and pigmented. In some places the microscope revealed thickening of the alveolar walls. The branching bands appeared to be of peribronchial situation, and microscopically showed all degrees between a cellular and fibrous structure. The perivascular changes were, however, purely fibrous. There were many hæmorrhages that probably resulted from the wide thin-walled capillary vessels. The kidneys and spleen were indurated. In places there was some intra-alveolar fibrosis, and but a slight degree of pleuritic thickening. No tubercle bacilli were to be discovered anywhere. The new growth of fibrous tissue was of bronchial or peribronchial origin, and, pathologically, might be described with some German authors as peribronchitis fibrosa. The caseous nodules were possibly gummatous.—Dr. GOODHART considered that the presence of general arterial sclerosis lent support to the view that the case was one of syphilitic phthisis, of which disease he had seen several examples.—Dr. GREEN regarded the specimen as one of great rarity, and did not look upon it as syphilitic.—Dr. PERCY KIDD thought the condition might possibly be syphilitic.

Dr. HADDEN showed a specimen of Lympho-sarcoma of the Stomach which came from a woman aged fifty-three, in whom weakness, pallor, loss of flesh, and pleuro-pneumonia of the left lower lobe were the chief clinical features. During life also a tumour in the hypogastrium, which turned out to be a uterine fibroid with an elongated pedicle, was detected. There was some degree of leucocythæmia. The specimen shown was a globular tumour on the anterior wall of the stomach projecting forwards midway between the orifices and near the lesser curvature; on the inner aspect of the organ was to be seen a triangular ulcer that led an inch and a half into the tumour; a second ulcer, smaller, was situate on the left of the first. Fatty degeneration of the heart also existed. Microscopically the tumour exhibited small, rounded, nucleated cells lying in a reticular structure having a papillary or alveolar arrangement. Necrosis had probably produced the ulceration and the prolongation inwards. Allusion was made to a specimen of malignant lymphoma of the mesentery shown by Mr. Silcock last session.

Sir WILLIAM MAC CORMAC exhibited a Tumour of the Palate taken from a woman, aged thirty, in whom the voice had become thick, and difficulty in swallowing existed. About two months before admission a swelling was noticed by the patient in the mouth. The tumour, nearly the size and shape of a Tangerine orange, occupied the left half of the palate, and reached nearly to the teeth in front; it had a firm elastic consistence, and was very vascular on the surface. The lymphatic glands at the angle of the jaw were enlarged. A preliminary tracheotomy was done to prevent suffocation from hæmorrhage, which was very free, but stopped by pressure and thermo-cautery. The cheek was incised before the tumour was enucleated. The hole in the hard palate was closed by an obturator. The microscope showed a hyaline connective tissue, traversed by groups of cells having a branching form; Mr. Shattock pronounced it to be a cylindroma of the palate. Reference was made to specimens exhibited by Mr. Treves, and also to others that had occurred in the practice of Verneuil and other continental surgeons.—Mr. A. A. BOWLBY agreed as to the tumour being a genuine cylindroma. It reminded him of a specimen shown by Mr. Butlin from the popliteal space; this was also encapsuled, but still very malignant, and led to amputation of the thigh. The clinical history of cylindroma was not a benignant one; the tumour was, indeed, but one form of round-celled sarcoma.—Mr. BUTLIN agreed with the remarks of the previous speaker.—Mr. F. T. PAUL had seen similar

tumours in the tonsil, cheek, and lip, which he regarded as of adeno-myxomatous nature, like the tumours of the parotid gland.—Dr. F. SEMON said that, judged by the number of cases that had been recorded, he had come to the conclusion that both benign and malignant tumours of the palate were very rare.—Mr. SHATTOCK could not agree with Mr. Paul that the cylindroma of the palate was like the parotid tumours.—Mr. ROGER WILLIAMS had seen two similar tumours in the upper lip.

Dr. HANDFORD exhibited a specimen of Ante-mortem Digestion of Stomach. The patient was a man aged twenty-three, who had had an attack of hæmatemesis and melæna two years before his final illness, which began last year on July 20th, when he was walking by the side of the Trent. The man felt dizzy, had pain in the abdomen, and fell down. On admission to the Nottingham Infirmary he was pale, and had severe pain, which was relieved by pressure in the epigastrium. The abdomen was flat; there was difficulty in swallowing; a slough was noticed on the margin of the soft palate. He was fed by milk and ice, and given a hypodermic injection of morphia. His condition was unaltered from July 21st to 23rd. On the 24th he vomited one pint of blood. He was moribund on the 27th, and died on the 28th. The necropsy was made five hours after death. A blood-clot covered the left lobe of the liver, and weighed 1 lb. 13½ oz. There was a cavity, with friable, rough, irregular walls, occupying the region of the stomach; the liver projected into the cavity. There were no signs of general peritonitis, but the cavity was shut off by adhesions. A softened discoloured patch was found in the diaphragm, and another in the omentum. Poisoning was suspected, and Taylor on Forensic Medicine referred to cases of corrosive poisoning that lasted a few days. There were fermentative changes in the blood-clot; he had submitted the specimen to Mr. V. Horsley, who said there was no trace of thrombosis of the gastric vessels.—Dr. BRISTOWE asked for information as to the adhesions; was the hæmorrhage into the stomach? In reply it was stated that the adhesions were recent, but the stomach had been so much destroyed that it was difficult to say where the hæmorrhage had occurred, the only recognisable parts of the stomach being the pyloric and cardiac orifices. The kidneys were healthy.—Dr. F. PAYNE asked whether an analysis were made as to poisoning. If the case were one of ante-mortem digestion it would be unique in medical literature.—Dr. HALE WHITE pointed out that the cavity described corresponded exactly with the lesser cavity of the peritoneum, and considered that post-mortem digestion might account for some of the appearances.—Dr. HANDFORD was inclined to regard the case as one of corrosive poisoning in the first instance, but believed that considerable ante-mortem digestion of the stomach had also occurred.

Mr. F. T. PAUL (Liverpool) showed specimens and drawings of Congenital Adeno-sarcoma of Kidney taken from a girl aged two years. The clinical history had already been published in the *Liverpool Medico-Chirurgical Journal* of 1885. The tumours were situate between the pelvic membrane and the substance of the kidneys. Microscopically broad trabeculæ of rounded cells were to be seen, and also tubes with considerable lumen; the complex nature of the tumour, having round cells, spindle cells, white fibrous tissue and elastic tissue, with young striated muscular fibres, was referred to. There was no doubt that much of the tumour was composed of newly formed renal tissue. The specimen was congenital not only in origin but also in growth. He also read a brief paper on Calcification of Arteries, alluding only to that of the muscular coat of the smaller arteries as met with in senility. The process was associated with a genuine process of ossification, although it commenced as a calcification. After the calcification the hard plates became fractured in various directions. This led to irritation and the deposition of inflammatory products. In the calcareous plates a fibrous structure, the remains of the muscular fibres, and also sometimes laminated spherical deposits, could be discovered. The plastic inflammatory products developed into bone. The changes were well seen in the posterior tibial artery; here the fractures in the calcareous plates were mended with patches of bone, even sometimes having the appearance of Haversian systems. The change could be seen in a thrombus also. The order of change was calcification, followed by irritation and exudation of lymph, while ossification took place.

The following card specimens were exhibited:—Dr. Payne (for Dr. Jacob, of Leeds): Tumour of Finger (referred to Morbid Growths Committee). Dr. Hadden: Single Cyst of Liver. Dr. Handford: (1) Right-sided Ulcerative Endocarditis; (2) Acute Intestinal Obstruction, due to a band; (3) Thrombosis of Left Posterior Cerebral Artery; (4) (for Mr. E. Powell) Congenital (?) Atrophy of Right Kidney. Dr. Pasteur: Aortic Aneurysm with Mitral Stenosis. Mr. E. H. Fenwick: Post-trigonal Pouch of Bladder, containing Stone, Kidneys Hydronephrotic. Mr. Shattock: Lumbo-sacral Meningo-myelocele cured by Morton's Treatment.

CLINICAL SOCIETY OF LONDON.

Hernia Cerebri treated by Silver Plate closing the Opening in Skull.—Nervous Sequelæ of Small-pox, especially as affecting the Speech.—Baruria in a Woman.—Phosphorus Necrosis of Lower Jaw.

AN ordinary meeting of this Society was held on the 12th inst., Mr. T. Bryant, F.R.C.S., President in the chair.

Dr. MACLAREN read an account of a case of Hernia Cerebri successfully treated by closing the Opening in the Skull with a Silver Plate. A man, aged twenty-six, was admitted to the Cumberland Infirmary on March 25th, 1885, with a compound fracture of the skull inflicted three days before. For six days after his admission his condition grew progressively worse. He became deeply comatose, passed motions involuntarily, and had frequent convulsive attacks. The scalp wound was then enlarged, and all fragments of bone removed; they were ten in number, and some deep in the brain substance. The aperture left in the skull was three inches long, and varied in breadth from one inch above to half an inch below; it was three-quarters of an inch in front of, and parallel to, the left temporal ridge, and its lower end was at the supra-orbital ridge. Some brain which had protruded was removed and some diffluent brain gently syringed away. While being put under chloroform it was noticed that the right side was paralysed. An unsuccessful attempt was made to make the wound aseptic. From this time his condition improved; he gradually became less comatose, convulsions ceased, and in about a fortnight he understood what was said to him, though he did not speak. By this time hernia cerebri had again occurred, and Dr. Maclaren removed it on April 14th placing a silver plate (a rolled out florin) inside the skull, so as to block the opening. On May 3rd the hernia cerebri again existed, owing to the plate slipping to one side within the skull. The protrusion was cut off, and this time the plate so secured with wire that it could not be thrust to one side. The scalp was liberated by two incisions parallel to the wound and sutured over the plate. The plate was left in for two months, no protrusion occurring, when it was removed, and the wound soon healed. He was discharged from the hospital on Sept. 5th, when there was slight dragging of the right leg, absolute paralysis of the right arm, and slight want of expression on the right side of the face. He was sometimes at a loss for a word, and much given to repeat the same expressions. During the latter part of his stay in the hospital he had two fits, and he has had several since mostly at night, and always with an aura. The paper pointed out the very small amount of local irritation caused by the plate, which did not exercise any pressure on the brain, but merely replaced the normal covering. The result was a substantial reason for trying it again in a similar condition.—Mr. BRYANT congratulated Dr. Maclaren on the success of his case; the treatment was novel, but he doubted whether it would replace persistent external pressure—say, with thick sheet-lead,—by which method he (Mr. Bryant) had obtained considerable success; he deprecated removal of cerebral hernial substance. He asked why external portions of the hernia were sliced off.—Mr. GOLDING BIRD related three cases of hernia cerebri. Tannic acid was found to be a useful application in the first case, which recovered completely. In the second case tannic acid was employed, but extensive sloughing and fatal cerebritis ensued. In a third case simple antiseptic dressings were used, with ultimate success. He ventured to think that external pressure would prove equally satisfactory with internal pressure.—Mr. A. PEARCE GOULD spoke of a case of hernia cerebri the size of a Barcelona nut; external pressure by means of a pad of lint failed to repress the growth; there were no symptoms till convulsions set in, which being repeated, Mr. Gould shaved the hernia off, and opened and drained an abscess;

some paralysis occurred after this, but passed away, and the boy recovered completely. He considered that the tendency to the development of cerebral hernia depended on the intracranial condition, such as inflammation.—Dr. MACLAREN, in reply, said that external pressure was tried in every form. Lawrence had pointed out that in fungus testis there was a mixture of granulation tissue and the proper tissue of the organ; so it was in hernia cerebri.

Drs. WHIPHAM and A. T. MYERS read a paper on some Chronic Nervous Sequelæ of Small-pox, especially as affecting the speech, and narrated the particulars of two cases. They had been unable to find any reference among English writers, although doubtless such cases occasionally occur in this country, seeing that several instances are on record in Germany and in France. The patients were married women, aged forty-five and forty-two respectively; one had small-pox in 1879, the other in 1881, and both recovered incompletely with some paralytic and ataxic symptoms, the chief peculiarity being an affection of the speech, in which the syllables were scanned or "squeezed out." In the first case the patient had enjoyed excellent health until she fell sick of small-pox, three weeks after confinement. The disease was of the confluent variety. She was delirious for twelve days, and on recovering her senses it was found that she was unable to make herself understood for the next few days. There was much muscular weakness in her hands and legs. Her temper became very irritable. Her tongue was protruded to the right at first, with the tip pointing downwards, and as protrusion was completed, it gradually assumed the normal position, and this symptom lasted for three years. The right azygos uvulæ acted more powerfully than the left. Her power of writing left her in the earlier stages of the disease, but was subsequently recovered to a great extent; she could not button her clothes, and if she held a cup in her hand she was liable to drop it; the left hand was more affected; the grasp of both was feeble. Sensation was perfect, and her intelligence when under observation at St. George's Hospital was remarkably acute. The legs were affected at first, and her gait was extremely awkward and unsteady. With the exception of the affection of the speech, she recovered from all these symptoms. She first came under observation in Jan. 1880, and on Nov. 15th, 1885, the peculiarities of speech remained—viz., her inability to pronounce correctly such words as "Clara," which became "Nai-dee"; "Richard," which was pronounced "Nit-erd"; each syllable was forcibly jerked or "squeezed" out. When she attempted conversation it was almost impossible to understand her. The second case was that of a woman aged forty-two, who had enjoyed good health until July, 1881, when she caught small-pox. The disease was modified by vaccination, but for the first few days she was in a state bordering on mania, and unable to articulate. She bit and tore the bedclothes with her teeth, and grasped objects firmly with her hands, although she had nearly lost the power of moving her upper and lower extremities. Stools were passed voluntarily. Her pupils were unequal. In this state she remained for a week. She then partially recovered her senses and her power of articulation. Her speech very closely resembled that of the former case, being slow, nasal, and monotonous; each syllable was jerked out in a semi-explosive fashion, but she did not, as in the former case, experience difficulty with special letters or words. She was liable to outbreaks of temper, and her gait showed some incoördination, though there were no symptoms of locomotor ataxy or disseminated sclerosis; the deep reflexes in the legs and arms were slightly in excess. She could not perform the movement of the shake on the piano, nor could she plait her hair; she could not nurse her child lest she should drop it. During the four years she was under observation she regained control over her limbs, and her speech at the last examination (Nov. 15th, 1885) showed slight improvement. Inquiry at some of the chief small-pox hospitals did not furnish any similar instances, except at Deptford, where Mr. Struthers had met with two cases in which speech became unintelligible, one of which recovered in three weeks and the other died. It was remarked by the authors of this paper that the clinical picture in these was not that of disseminated sclerosis. There was sudden onset, but no increase of tremor on motion, and no nystagmus, and the "squeezing out" of the syllables was different from the ordinary form of speech in disseminated sclerosis, and what was more important, the prognosis was better. It was suggested in explanation of the symptoms in these cases that minute scattered hæmorrhages, chiefly cerebral, had occurred, and that such lesions might be more common in small-pox than in other fevers. This hypothesis appeared probable from the fact that out of eight closely analogous cases tabulated by the authors, this peculiar scanned speech had been a sequela in six cases in which the patients had suffered from small-pox. Since this communication was sent into the Society, Professor Jaccoud's clinical lectures ("Leçons de Clin. Med.," 1886) have been published, in which he gives two similar cases from his own practice, one after pneumonia, the other after small-pox.—Dr. HUGHLINGS JACKSON considered the paper one of great interest. He referred to the case of a man aged forty, whom he showed to the Society, in whom the delirium had been very marked and prolonged. There was the same peculiarity of articulation, and also a want of coördination of the hand, especially for finer movements. He believed that similar groups of symptoms occurred without febrile disease. The suggestion that seemed to him best to meet the pathological necessities of the cases was a thrombosis occurring in a minute vessel of the medulla oblongata.—Dr. STEPHEN MACKENZIE had seen several cases of the kind having the same characters in the monosyllabic nasal articulation. Severe malarial poisoning could also give rise to the same phenomena, but there was then generally tremor also. He had related a case in *Brain*, that occurred after variola, of anterior poliomyelitis, and suggested that a similar condition of the motor cells of the medulla might give rise to the same phenomena as those met with in the cases in question; the pathological nature of the lesion might also be thrombosis.—Dr. T. BARLOW spoke of a case in which the articulatory symptoms were not so definitely marked as in the author's cases, but which probably belonged to the same category. The patient was a woman aged twenty-five, who was first seen within a week of leaving the small-pox hospital. There was ataxy of the lower and upper limbs; the articulation was altered, but not in the scanned way, though the enunciation was slow and the voice high pitched. Double optic neuritis and deafness, with mental obtuseness, were other phenomena observed. He had seen the case of a man with paralysis of the serratus magnus occurring after small-pox; but peripheral neuritis might have been the lesion here. Dr. Barlow also related a case of fatal myelitis occurring during measles. It was that of a policeman, healthy and young. About four days after the appearance of the rash paraplegia and retention of urine appeared, and the paralysis ascended, but did not affect the brain; death ensued in three days. There was microscopic evidence of myelitis, and most marked in the anterior cornua. He considered that a distinction would have to be drawn between true sequelæ due to a kind of chronic starvation and nervous phenomena occurring during the exanthematic period. It appeared in the last case as though the measles eruption were coming out in the nervous centres. It would be important to note the exact period of supervention of the nervous phenomena in any future cases.—Dr. SEYMOUR TAYLOR referred to a case of amnesia occurring after small-pox, which he thought resembled in some respects those related by the authors of the paper.

Dr. SAMUEL WEST read notes of a case of Baruria in a woman. The patient, aged thirty-nine, complained after catching cold of pains and aching in her limbs, which became severe enough after a week to keep her in bed. When admitted, these pains continued, but there was swelling of joints. The temperature was 100°, and she perspired freely, but the sweat did not smell sour. The urine had a specific gravity of 1040, and yielded copious crystals of nitrate of urea, with nitric acid. Her appetite had been for some days almost absent, and in the hospital she took but little milk or beef-tea. For two days the condition of the urine was the same, and the percentage of urea 5·1. This percentage gradually fell to normal, and as it did so all the patient's symptoms disappeared. The case was regarded as one of baruria. The account of the cases given by Prout was summarised and compared with the present case, and reference was made to other authors, by some of whom the existence of the affection was questioned, while by others it was not referred to. A somewhat similar case, the result of over-feeding and constipation, was described, in which like symptoms were associated with a high urea percentage, and disappeared when the percentage returned to normal.

Mr. HUTCHINSON read a case of Necrosis of the Lower Jaw from the Medicinal Use of Phosphorus. The patient was a lady aged sixty-five, who was seen by Mr. Hutchinson in November last, when the lower half of the face

was enlarged, and several sinuses opened externally; bare discoloured bone was exposed in the mouth along the whole length of the alveolus; discharge profuse and fetid in the extreme. In explanation of the origin of the necrosis, it was elicited from the patient that she had "been taking phosphorus for the last two years," and had "quite renovated her braid" thereby, the truth being that, save for a few intervals, she had during the time named been taking three Kirby's pills per diem, each containing the thirty-third of a grain of phosphorus. The condition of the patient being much reduced, operation was deferred pending improvement in her general health, until the present month, when, after consultation with Sir J. Paget, Mr. Hutchinson removed about four inches of dead bone without having to resort to cutting instruments for its separation, although he feared at first this would be necessary. The patient made an excellent recovery. Mr. Hutchinson remarked that Kirby's phosphorus pills were in very extensive use, but that this was the only case in which, to his knowledge, jaw disease could be traced to their employment. The patient had carious teeth at the time, and inflammation of the jaw had begun in connexion with one of them, and probably about six or nine months after the taking of the pills commenced.—Mr. BRYANT said that he had no doubt that osteitis and necrosis of the jaw could come on without any definite cause being ascertained. The cases simulate in their clinical appearances those which we regard as examples of phosphorus necrosis. He referred to two cases—one died of pneumonia, and the other occurred in a pregnant woman. In reply to Mr. Hutchinson, he said the possibility of phosphorus being operative was negatived by careful inquiry.—Dr. BRISTOWE did not doubt the possibility of the occurrence of necrosis from the internal administration of one-thirtieth of a grain of phosphorus three times a day.—Dr. COUPLAND inquired if there were albuminuria; for in phosphorus poisoning fatty degeneration of the kidney occurred.—Mr. HUTCHINSON said there was certainly no albuminuria whilst the case was under his observation.

Dr. EWART exhibited a modification of the Binaural Stethoscope suited for differential observations.

The following living specimens were shown:—Mr. Victor Horsley: Congenital Tract in the Raphe of the Scrotum. Dr. Hughlings Jackson: Affection of Articulation; a sequel to small-pox. Mr. T. Cooke: (1) Primary Epithelioma of the Tonsil; (2) Cyst on Back of Wrist (Ganglion). Mr. Bernard Roth: (1) A patient with Extreme Lateral Curvature of the Spine after three months' treatment; (2) Sister of above case with Lateral Curvature of Spine in earliest stage.

MEDICAL SOCIETY OF LONDON.

Furneaux Jordan's Amputation.—Excision at Hip-joint.—Mediastinal Tumour.—Anæsthetic Leprosy.—Xanthelasma.—Scleroderma.

A CLINICAL meeting of this Society was held on Monday last, Mr. Brudenell Carter, F.R.C.S., President, in the chair.

Mr. EDMUND OWEN read notes of a case of Amputation at the Hip-joint by Furneaux Jordan's method in a boy aged six. The disease began in May, 1885; an abscess formed in the hip and knee-joints; pyæmic abscesses developed in other parts; in August amputation was performed through the lower third of the thigh, but fresh mischief ensued, and amputation by Furneaux Jordan's method was performed in December last. There was considerable enlargement of the liver, and the urine contained a quarter of albumen. After going away to the seaside the boy returned with a stump that evidently contained a thick core of bone; the albuminuria and hepatic enlargement had considerably diminished. Mr. Shuter's case, reported in the Clinical Society Transactions, was alluded to. In Mr. Owen's case this new bone was synostosed to the acetabulum. Jordan's method greatly diminished the risk of amputation at the hip-joint, and he believed it had given the death blow to the old method of transfixion.—Mr. B. CARTER asked whether there was any increase in the secretion of urea.—Mr. B. JESSETT considered that the diminution in the size of the liver in Mr. Owen's case was a point of great importance. He narrated a case showing the same circumstance.—Mr. R. DAVY also bore testimony to the disappearance of a large liver after surgical interference. In Mr. Shuter's case there was some doubt whether the hard formation in the stump was bone or fibrous tissue. In Mr. Owen's case there could be no doubt of the presence of bone.—Mr. B. CARTER referred to the first case of amputation of the hip-joint, in which the femoral artery was ligatured as a preliminary; the patient followed the country surgeon to the grave fifty years after the operation.—Mr. E. OWEN considered that albuminuria from scrofulous disease and crepitations at the apex of a lung were indications for operation.

Mr. WALTER PYE showed the boy on whom he had three years previously performed excision of the hip-joint for acute destructive arthritis; the result was and is still highly satisfactory, considerable movement being possible between the femur and hip-bone.—Mr. E. OWEN had expressed his desire to Mr. Pye to have the time test; the success, he admitted, was perfect.

Dr. WILLIAMS communicated a case of Mediastinal Tumour, causing unusual compression of the neighbouring organs. The patient, a male aged forty-three, was admitted into the Brompton Hospital in December, 1884, complaining of increasing dyspnœa, slight cough, wasting, but principally of intense pain on deep breathing in the left side of the chest, extending over the left side of the head and down the left arm. The physical signs indicated the presence of a tumour growing from the root of the left lung, and compressing that organ, so as to prevent the entry of air. A fortnight later the pain had increased, the cough had become violent, and the expectoration tinged with blood; there was dysphagia, the left pupil was larger than the right, and the left vocal cord was fixed. As the growth increased, the symptoms of pressure became more marked, dyspnœa became severe and paroxysmal, the dysphagia rendered all swallowing impossible, and the patient was fed by nutritive injections. The cough assumed a metallic character, and the voice became stridulous. The left radial pulse was markedly weaker than the right. A systolic murmur was heard under the right clavicle, and each pulsation of the heart was transmitted with such force to the parietes of the left chest, owing to its contents being solid and practically airless, that the presence of aneurysm was at one time suspected. The obstruction to the vascular system was shown in œdema of the right upper extremity, and the patient died of syncope two months after admission. The post-mortem examination showed the presence of a growth occupying the anterior mediastinum, extending from the apex to the sixth rib anteriorly, and crossing the median line to the extent of two inches. The heart was pushed aside, but had been invaded by the growth, the pericardium containing similar tumours, and the left pulmonary artery and the second and third portions of the aorta being considerably constricted. The tumour had encroached on the left lung, infiltrating and destroying its substance, leaving the lower lobe collapsed. The left bronchus was reduced in calibre and the tumour invaded the root of the right lung, occluding the œsophagus and causing the formation on its anterior wall of an ulcer about the size of a shilling. Microscopic examination showed the growth to be lympho-sarcoma. Dr. Williams drew attention to the gradual evolution of the symptoms of compression from the growing tumour, which appears to have extended at the same time in several directions. It was rare to find a lung so completely solid as to transmit the heart's vibrations so faithfully as to give rise to a suspicion of aneurysm—a suspicion which was, however, at once set at rest by the large extent of dulness.—Dr. DE HAVILLAND HALL considered that the audibility of the heart-sounds over the tumour was rather favourable to the diagnosis of aneurysm. He asked what the position of the vocal cord was in Dr. Williams's case.—Dr. S. WEST agreed that there was difficulty in diagnosing pleural effusion from mediastinal tumour, and *vice versâ*. Experience showed that pulsation was not confined to aneurysm. A distinction was drawn between tumours commencing in the mediastinal glands and those beginning in the tissue around the root of the lung and spreading along the bronchi.—Dr. FINLAY and Dr. ANGEL MONEY considered that the employment of the exploring syringe was most valuable, and ought to be more frequently practised than it was.—The PRESIDENT suggested that the pupil might vary according as there was complete or incomplete paralysis of the muscular fibres.—Dr. WILLIAMS, in reply, believed the left vocal cord was in the cadaveric position.

Dr. RADCLIFFE CROCKER read notes of a case of Anæsthetic Leprosy. The patient was a man aged twenty-two, in whom the disease began in October, 1879, with swelling in

the leg and severe shooting pains down the limbs. Exacerbations had occurred from time to time; there were the signs of a pulmonary cavity; patches of anæsthesia were present on the thighs, legs, feet, forearms, and arms. The symptoms simulated ague at their onset. Bacilli from pus of broken-down tubercles were shown. Chaulmoolgra oil and Gurgun oil were used in treatment; the tubercles either get absorbed or ulcerate.

Mr. JAMES STARTIN exhibited a case of extensive Xanthelasma in an adult German. The disease began ten months ago on the backs of the hands; the palms, elbows, and knees were successively affected. He had had jaundice three years ago. A case of diffuse Scleroderma in a girl aged thirteen was also shown: it began in the scalp and spread down the face. A man aged fifty, suffering from Angioma of the Left Cheek, was also exhibited.

OPHTHALMOLOGICAL SOCIETY.

Deposit of Quinine in Cornea.—Biniodide of Mercury Solution.—Report on Sympathetic Ophthalmia.—Cerebral Hæmorrhage and Optic Neuritis.—Glaucoma.—Central Blepharoraphy.

AN ordinary meeting of this Society was held on the 11th inst., Mr. Jonathan Hutchinson, F.R.C.S., President, in the chair. It was announced that at the meeting on May 6th a discussion would take place on the subject of Exophthalmic Goitre.

Mr. LANG showed a case of Deposit of Quinine in both Corneæ, with retention of good vision. The quinine had been given internally; eserine was used locally. The original disease was perforating ulcer of the cornea, and an anterior synechia remained in one eye. The deposit was of a very peculiar nature, and gave a fluorescent appearance on focal illumination.—Mr. J. TWEEDY had employed solutions of quinine locally for more than ten years, the solution being frequently applied, and often for weeks together. He had never seen any deposit in the cornea, though he had watched the effect of quinine very carefully. There was a very great difference between English- and German-made quinine; he always used the former.—Mr. NETTLESHIP said the deposit in the cornea was very peculiar, unlike any deposit he had ever seen.—Mr. MCHARDY had not observed any deposit, though he had frequently employed quinine and eserine.

Mr. EDGAR BROWNE spoke of the possibility of obtaining a solution of biniodide of mercury, to which Mr. Brudenell Carter had drawn attention at the last meeting of the Society. The chemist, acting under Mr. Browne's instruction, had succeeded in obtaining a solution, or rather suspension in minutely subdivided form, of biniodide of mercury by using alcohol at 90° as recommended by M. Panas. Chemical reaction showed that mercury was present in the fluid.

Mr. NETTLESHIP read the report of the committee on Sympathetic Ophthalmitis. It was based on a detailed analysis of about 200 cases of sympathetic ophthalmitis collected by the committee as bearing upon certain points in its nature and treatment. About eighty of these were contributed by members of the Society, to whom a circular had been sent; the rest were from published sources. In respect to excision of the exciting eye, the conclusion arrived at was that whilst its removal, soon after the onset of the sympathetic inflammation, had not been proved to have any marked effect on the progress of the sympathetic disease, it certainly did not increase the severity of it; comparing equal numbers of cases in which the exciting eye was, and was not, removed (soon after the onset of the sympathetic disease), the proportion in which the disease was fatal to sight was much greater in the latter group than in the former; the apparent value of this evidence in favour of early excision, however, was somewhat diminished by evidence of another kind, which tended to show that the excess of recoveries after excision was partly due to the natural mildness of the disease in that group, and the excess of losses when excision was not performed, to its natural severity. In respect to mercury, the conclusion was tentatively arrived at that the drug had probably little, if any, effect; of fifty cases which recovered completely, and were treated locally in much the same way, mercury was administered to exactly one-half. The effect of operations (iridectomy) on the sympathising eye, performed early in the disease, was thought to be less unfavourable than is commonly held. In a small series of cases, an iridectomy had been performed on the exciting eye soon after the sympathetic inflammation had set in, and in nearly all with a favourable result to both eyes. The important question was next considered whether sympathetic ophthalmitis could be set up by an eye in which no perforation had ever taken place. After a very careful and thorough examination of cases, the committee had come to the conclusion that the occurrence of the disease without perforation of the exciter, if known at all, was, at any rate, extremely rare. In reply to questions as to the longest and shortest intervals respectively between the lesion of the exciting eye and the onset of sympathetic disease, only about a dozen cases were found in which an interval of more than a year occurred, unbroken by recurrences of inflammation in the exciting eye; and only eighteen in which the interval was a month or less. The longest interval where the exciter had been wounded was twenty years, the shortest nine days. There seemed to be reason for believing that the length of the interval was not without influence on the severity of the sympathetic ophthalmitis; the proportion of cases in which blindness ensued being considerably greater when the disease had set in after a long, than after a short, interval. Consideration was then given to all the cases (about thirty) in which sympathetic ophthalmitis was known to set in after excision of the exciting eye, in five cases in from four to eight weeks after; in all cases the exciting eye had been wounded, and had been left long enough to undergo changes capable of setting up the disease; and the conclusion was drawn that, in these cases, the sympathetic attack was due to the influence of the wounded eye, and not to the operation for its removal. The prognosis in these cases was shown to be much better than in ordinary cases, as more than half recovered entirely. After reference to certain anomalous cases happening many years after excision, and to others where iritis followed the removal of the exciter within a day or two of the injury, the Report concluded with a notice of the cases of so-called uncomplicated sympathetic neuritis. It had been found that these cases of sympathetic neuritis differed much amongst themselves, and probably could not all be ascribed to the same cause, nor be taken as pointing to transmission along the optic nerves; whilst the papillitis, which often occurred early and remained late in ordinary cases of sympathetic ophthalmitis, was far from proving that mode of transmission, since the same papillitis was commonly seen in cases of idiopathic serous iritis, even when only one eye suffered. The Report was illustrated by cases.—The PRESIDENT considered that the report of the committee showed evidence of great judgment as well as great labour, and there could be no doubt that the report would form a most valuable section of the Annual Transactions of the Society. A vote of thanks was unanimously offered to the members of the committee, and the President hoped that the supplementary report alluded to in the report would also be forthcoming.

Dr. BRISTOWE read a paper on a case of Cerebral Hæmorrhage with Double Optic Neuritis. A musician, aged fifty-five, was first seen on Jan. 19th. It appeared that he had suffered from headache for one year, and dimness of sight for six months; but there had been no paralysis, double vision, or fits. At 10.30 P.M. after supper on last Boxing Day loss of consciousness and right hemiplegia suddenly supervened. The patient remained drowsy and stupid, took but little notice of his surroundings, and passed his evacuations into the bed. The arm and leg were absolutely paralysed; the plantar reflex on the right side somewhat diminished. There was no clonus, and the knee-jerks were not exaggerated. Complete hemi-analgesia and anæsthesia were also observed; the special senses could not be investigated. The temperature was 97·4°; the pulse 90 and strong; no albuminuria. For ten days the patient remained the same, then became more drowsy and absolutely speechless. Some stiffness of the right arm came on. The head and eyes were turned to the left, but the patient could move the head and eyes to the right. Mr. Nettleship examined the eyes on Jan. 30th, and found both discs swollen and reddish-grey—a papillo-retinitis with hæmorrhages. Dr. Bristowe then considered the case to be one of cerebral tumour. The patient gradually got worse, and died comatose on Feb. 12th. At the necropsy the spinal cord and membranes of the brain were healthy. The arteries were atheromatous. A blood-stained area, the size of a threepenny-piece, was seen on the surface of the posterior part of the left optic thalamus; this was the

external evidence of a large cavity, the size of a pigeon's egg, containing partly decolourised clot, in the optic thalamus. The hæmorrhage had also ruptured the posterior limb of the internal capsule, and extended into the white matter of the temporo-sphenoidal lobe. The lenticular nucleus was also damaged at its posterior part. The heart weighed 17½ ounces, being much hypertrophied; the kidneys were healthy. Dr. Bristowe remarked on the unusual position of the hæmorrhage and the rarity of the association of such optic neuritis with simple cerebral hæmorrhage.—Dr. HUGHLINGS JACKSON considered that the case was one of great rarity, and he did not think he had seen one like it. Hæmorrhage from cerebral tumour might lead to a mistake. A large blood-clot might be regarded as a foreign body. The fact that there was conjugate deviation of the eyes and head for from five to six weeks was remarkable, for this symptom was usually transitory.—Dr. S. SHARKEY said there was no evidence of glioma in the tissue around the clot. He could not say what the cause of the hypertrophy of the heart was. There was no doubt of the extreme rarity of optic neuritis associated with ordinary cases of hæmorrhage, which usually occurred in the anterior portions of the internal capsule. In the present case there was rupture, and not mere pressure on the posterior third of the posterior segment of the internal capsule, and the lesion had damaged also the optic radiations of Gratiolet. He suggested that an explanation of the occurrence of optic neuritis might be found in the unusual position of the hæmorrhage, damaging at the same time both sensory and motor paths.

Mr. PRIESTLEY SMITH read a paper on Primary Glaucoma in relation to Age. With the help of members of the Society he had collected 1000 cases of primary glaucoma, and had classified them according to the age at which the disease began, the sex of the patient, and the type of the glaucoma. From these actual cases calculations had been made with the help of life-tables to show what the distribution would be if persons of both sexes and all ages were equally numerous. These statistics represented the relative liability of persons of different ages and the two sexes. The results were shown in a series of tables and charts. The following facts appeared:—1. Primary glaucoma is extremely rare in childhood and youth. 2. Its frequency increases, slowly at first, then more rapidly up to the sixth decade; between sixty and seventy it is about as frequent as between fifty and sixty; after seventy its frequency declines. 3. Cases beginning after fifty are about twice as numerous as cases beginning before fifty. 4. Females suffer in rather larger number than males. 5. The non-congestive form is commoner in males than in females. 6. The congestive forms are much commoner in females than in males. 7. The liability is extremely slight in childhood and youth; at least 100 times less in the second decade than in the seventh. 8. It continually increases up to the seventh decade; between sixty and seventy it is at least twice as great as between forty and fifty. 9. After seventy years of age the liability appears to diminish, but the statistics cannot be relied upon, for very old people are less able to come up for treatment than those who are younger. Figures were quoted from the Manchester Eye Hospital Reports in proof of this assertion. 10. The liability of females is rather greater than that of males. 11. The extra liability of females pertains to the whole of life, except perhaps to the periods before thirty and after seventy, concerning which the data are insufficient for generalisation. 12. The extra liability of females relates to the congestive forms of the disease, not to the non-congestive. These results were applied by the writer as a test of the theory of glaucoma arrived at by other means. This first investigation, eight years ago, had led to the inference that change of form in the crystalline lens was concerned in producing glaucoma. A further inquiry arising therefrom had shown that the lens continues to increase in size throughout life. The present inquiry was undertaken to ascertain whether the liability at different periods of life was such as to confirm the supposed influence of the lens. The pathological theory to be tested was, briefly, as follows. As age advances the lens steadily encroaches on the space in which it lies, for the structures which surround it attain their full dimensions early in life. This brings its margin into closer and broader relation with the ciliary processes and lessens the depth of the anterior chamber—changes which, though ordinarily compatible with the integrity of the eye, involve an increasing liability to glaucoma. The highly vascular processes vary much in size according to the quantity of blood in their vessels, and if the space available for such variations be unduly encroached on, they are restricted in the direction inwards, and are forced to expand forwards; in so doing they press forward the base of the iris and narrow the angle of the anterior chamber, causing obstruction of the filtration channels—i.e., glaucoma. Evidence on these points had been published by the author in previous papers. He then proceeded to discuss the several predisposing and exciting causes of the disease, and showed that the analysis of his statistics gave strong support to the theory connecting the increasing liability to glaucoma with the continuous growth of the lens. He concluded by drawing an analogy between an acute glaucoma and a strangulated hernia. In the displacement of the bowel we have a condition, mechanical in its origin, which for a long period of time may have no serious consequence, but which may at its very outset, or at any later time, under a slight constriction, be transformed into one of acute and dangerous strangulation, with intense engorgement of vessels and outpouring of serum in the directions of least resistance. In the eye threatened by glaucoma we have an unfortunate relation of parts, which, though not itself a disease, may lead, through a little further encroachment upon the already narrowed space, to one of the most formidable of ocular disorders, involving stoppage of the intra-ocular currents, throttling of the circulation, and escape of serum into the transparent medium and the conjunctiva. Just as the taxis will occasionally remedy the displacement and terminate the danger in the one case, so, in a few instances, will eserine reopen the outlets and relieve the tension in the other; but just as in strangulated hernia it is generally necessary to at once relieve the constriction with the knife, so in most cases of acute glaucoma our only means of cure is to promptly unlock the eye by iridectomy.

Dr. ARGYLL ROBERTSON read a paper on the Operation of Central Blepharoraphy after enucleation. Many patients were unable to afford the expense of an artificial eye, or were unable to replace artificial eyes, or else the resulting conjunctival cavity was unfitted for the adaptation of an artificial eye. In these cases considerable deformity and discomfort were liable to arise in connexion with the conjunctival sac; papillomatous growths might arise, or the upper lid fall in and the lower one gravitate downward, leaving the conjunctival sac exposed to various irritations. To prevent these consequences, Mr. Streatfeild about twelve years ago recommended the removal of the conjunctival sac by dissection and caustics after enucleation had been done. Dr. Argyll Robertson considered that a central blepharoraphy would prove simpler and quite as effective in preventing the evil consequences of enucleation. The lower lid is grasped with a pair of stout forceps held parallel to the edge of the lid, and the conjunctival covering of the free edge of the lid is dissected off with a cataract knife to the extent of five or six millimetres, corresponding to the centre of the lid, care being taken not to damage the roots of the eyelashes. The upper lid is treated in the same way. Both are brought together by means of a horse-hair ligature. No drainage is needed. Healing takes place readily by first intention, and on the fourth or fifth day the ligature may be removed. The operation could also be employed for long-standing spasmodic ectropion of the upper eyelid. In this affection the tarsal cartilage has a faulty curvature imparted to it. After the eyelid has been kept by the central blepharoraphy in its natural position for some time, the tarsal cartilage regains its normal curvature, and the adhesions may be divided. Dr. Robertson had operated on two such cases with very successful results.—Dr. BRAILEY said the operation had been performed for some years past at Guy's in cases of corneal opacity.—Mr. J. TWEEDY had employed a kind of peripheral blepharoraphy, leaving a central fissure through which vision was possible, in cases of painful ulcers of the cornea and in ectropion of the lower eyelid due to caries about the orbit. He mentioned the case of a lady who had had this peripheral operation performed five years ago, and who refused to have the adhesions broken down because she felt so comfortable in her present state.

Mr. ADAMS FROST exhibited a model demonstrating the Movements of the Eyes. The eyes were represented by two wooden spheres, each movable in all directions round its centre by means of a double gimble-joint. The muscles were represented by cords, having points of attachment and lines of traction exactly similar to those of the natural muscles. The cords were acted upon by rotating three

drums, upon which they were wound. The upper of these controlled the lateral recti rotation in one direction, producing conjugate movement to the right, and in the other to the left. This drum was divided in its centre, so that if the halves were rotated in opposite directions, convergence or divergence was produced. The second drum acted upon both superior or both inferior recti, according to the direction in which it was turned, while the lowest acted upon the superior or inferior obliqui in the same way. Any of the natural movements could be produced by combinations of these movements. The ingenious suggestion to divide the uppermost drum to produce convergence or divergence was due to Mr. Paxton, of Messrs. Pickard, Curry, and Paxton.

The following card specimens were shown:—Dr. E. Clarke: Rare form of Vitreous Opacities in a case of High Myopia. Mr. Hartridge: (1) Double Glaucoma in a girl aged fifteen; (2) Congenital Small Lenses in a girl whose sister also had the same peculiarity. Mr. Brudenell Carter: a Spiral Perimeter.

The Council of the Society wishes to collect facts in reference to the symptoms, pathology, and treatment of exophthalmic goitre. The meeting to be held on May 6th will be specially devoted to this purpose. Communications, whether written or *vivâ voce*, which bear upon any or all of the following topics, will be acceptable.

1. Cases in which a necropsy was obtained. 2. Cases in which any definite cause could be assigned for the affection. 3. Abortive cases, that is, cases in which the usual symptoms were present for a short time, and in a slight form, and then disappeared. Are such cases common? 4. Cases which have ended in recovery. 5. Cases which have been kept under observation for long periods. 6. Cases which appeared to be definitely benefited by treatment. Do many cases get well when untreated, and if so, what is the duration of the disease in them? 7. Cases in which the exophthalmos was such as to threaten the safety of the eye, or to destroy it. What are the best measures of treatment with regard to this special danger? 8. Cases in which symmetrical exophthalmos has been observed without the other symptoms of Grave's disease. 9. In what order do the following symptoms usually appear and disappear:—(*a*) Palpitation and throbbing of carotids; (*b*) enlargement of the thyroid; (*c*) proptosis; (*d*) Graefe's lid sign? 10. Does Graefe's lid sign occur when there is no proptosis? Is it equally developed on the two sides? Does it ever accompany prominence of the eyeball due to other causes? Does it occur in hypermetropia, or myopia, or in healthy persons? Do such drugs as cocaine, eserine, and atropine produce anything like Graefe's sign? 11. Is the enlargement of the thyroid usually equal on the two sides? 12. In conjunction with what other diseases is exophthalmic goitre found? Does it occur often in several members of the same family? 13. This disease occurring most frequently in women, is any relation between it and derangement of the reproductive system observable? 14. Family histories of cases of the disease. 15. Has any similar condition been observed in any of the lower animals? Those who make oral communications will be restricted to a quarter of an hour, and will be expected to supply a written report of their remarks. Those who make oral communication of facts will not thereby be debarred from subsequently taking part in the discussion.

OBSTETRICAL SOCIETY OF LONDON.

Anatomy of Labour.—Sarcoma of Vagina and Uterus.

A MEETING of this Society was held on Wednesday, March 3rd, Dr. Potter, President, in the chair.

The following specimens were shown:—Dr. W. S. A. Griffith: Tubercular Disease of the Fallopian Tubes. Dr. Champneys for Dr. Fly Smith: Pellets of Corrosive Sublimate. Dr. Lewers: Cancerous Uterus extirpated by the Vagina. Dr. Playfair: A Calculating Ruler for fixing the Precise Date of Labour. Dr. Godson: A Double Monster of the Syncephalic ineops variety.

Dr. BARBOUR of Edinburgh showed a most interesting series of frozen sections, drawings, and diagrams illustrating the anatomy of the first stage of labour, of the third stage of labour from four cases of Porro's operation, and of the condition at the close of the labour from two cases of death post partum. He drew attention to the value of frozen sections, but said that allowance must be made for post-mortem changes and to those due to the posture in which the cadaver was frozen. The points of chief interest in the first group were the remarkable thickness of the lower segment of the uterus, the course of the ureters, and the disposition of the peritoneum and cellular tissue. The Porro preparations showed the contraction of the uterine wall and diminished placental area. The membranes are crumpled and partially detached, but the placenta is not separated. The placental site may therefore be diminished without the placenta being separated. He concluded that it was separated by detrusion. The absence of space into which it could bulge, the absence of hæmorrhage between the placenta and uterine wall, are against the mode of separation described by Baudeloque, Schultze, and Ahlfeld. These sections bore out the description of the method of expulsion so lucidly described years ago by Dr. Matthews Duncan. The chief point of interest demonstrated by the third group was the large amount of cellular tissue between the cervix and bladder.—Dr. MATTHEWS DUNCAN was astonished at the amount of good and original work which Dr. Barbour had laid before the Society. He referred to the length of time which had elapsed since William Hunter published his work on the gravid uterus, which was supposed to finish the subject. Frozen sections or homolographic anatomy had since done much to increase our knowledge, and now Dr. Barbour had passed from the anatomy of pregnancy to the anatomy of labour—a new field. Frozen sections could not be entirely depended upon to display the conditions during life, but they were of great value. Braune's plate of the anatomy of the second stage was of great value, but was notably misleading in some points, such as the position of the bowels, uterus, and peritoneum. Similar errors had been referred to by Dr. Barbour in his own sections. Dr. Duncan was reluctant to adopt Barbour's theory of the detrusion of the placenta. He had a strong liking for the shrinking site theory, because it combined separation and arrest of hæmorrhage. Everything connected with flooding was of great importance, and therefore he hoped to see Dr. Barbour's views thoroughly sifted. One great fact he had given, that with the site reduced to four inches in diameter the placenta might remain attached. — Dr. CHAMPNEYS, while greatly admiring Dr. Barbour's work and beautiful specimens, dissented from some of the conclusions drawn from the Porro specimens. Illustrations drawn from them as to the physiology of the third stage of labour could only be accepted when consonant with its clinical course. The flattened form of the uterus with the entirely adherent placenta seen in these preparations was contrary to the condition observed in nature, as where women had been examined by the introduction of the whole hand immediately after the birth of the child the placenta had been found entirely detached. Again, he could not agree with Dr. Barbour that these preparations prove that at the beginning of the third stage of labour there is no uterine cavity; its shape proves that it does not alone contain the placenta lying flat against the uterine walls, as in these preparations. Lemser advocated the "detrusion" theory from experiments on pregnant rabbits, but it must be accepted with caution, as the similarity between them and the human female is only slight. Dr. Barbour did not appear to rest on Lemser's observations, but arrived at his conclusions by a process of elimination of the other theories. The mode in which the placenta presents at the os uteri is an indispensable test as to the correctness of views as to its mode of separation.—The PRESIDENT tendered the thanks of the Society to Dr. Barbour for his demonstration, which were very cordially given, and Dr. Barbour replied.

A paper by Dr. LEWERS, describing a case of Circumscribed Sarcoma of the Vagina and Uterus, was then read. The patient was a married woman of fifty, with eight children, and was admitted into the London Hospital on June 27th, 1885. She had had three attacks of flooding, unattended by pain, but each followed by fainting and vomiting; was losing flesh, and had a dirty-coloured vaginal discharge. A lump now protruded from the vulva. She had had an attack of flooding nine years ago, then was regular for six years, and had another attack. The mass on examination was seen to be trilobed, and it was attached to the posterior vaginal wall by a broad pedicle. There was a second mass on the right side as large as a walnut. The uterus felt heavy, but was mobile. The growths were removed on July 2nd, and the patient died of septicæmia on the 7th. At the post-mortem three circumscribed growths were found in the uterus, and there were numerous small secondary growths in both lungs, but none elsewhere. Microscopic examination showed

the growths to be mixed, round, and spindle-cell sarcomata. Dr. Lewers thought that the uterine growths were probably the primary ones. There were no lung symptoms during life.—Dr. GERVIS gave details of a case of vaginal sarcoma upon which he had operated three times at lessening intervals, and which now again required operation. It was a small round-celled sarcoma.—Dr. W. DUNCAN was doubtful whether cases of sarcoma of the uterus and vagina should be operated on at all, as a radical cure was improbable.—Dr. M. HANDFIELD JONES mentioned the case of a girl aged sixteen upon whom he had operated a year ago, who still remained in good health. He thought if the growths were removed early enough there was a reasonable prospect that they would not recur. — Mr. KNOWSLEY THORNTON pointed out that it was often necessary to operate for the comfort of the patient, and could not think that the chance of recurrence was a ground for leaving the patient in misery, and each operation would give her at any rate a period of health and hope. The recurrence at lessening intervals was familiar to surgeons in all sarcomata, and hence the old name given by Sir James Paget to these growths, "recurrent fibroid."—Dr. ROUTH advocated the removal of these growths and the destruction of their site with strong caustics, such as nitric acid and bromine. He mentioned a case in which after a third operation there was no recurrence. — The PRESIDENT and Dr. HORROCKS also spoke, and Dr. LEWERS replied.

At the close of the meeting, the PRESIDENT announced that in future the Transactions would be published in monthly or bi-monthly parts; but those Fellows who preferred it could still have the volume sent to them as heretofore at the end of the session.

HARVEIAN SOCIETY.

Chronic Rheumatic Arthritis of the Hip-joint.

A MEETING of this Society was held on Thursday, March 4th, J. Hughlings Jackson, M.D., F.R.S., President, in the chair.

Mr. W. ADAMS read a paper on Chronic Rheumatic Arthritis of the Hip-joint. He described at length the structural changes occurring in the later stages of the affection, and suggested that all the old museum specimens showed that the cases might be arranged in three classes. 1. In which the bones are increased in density and weight; the femur in these cases showing no depression of the head or any absorption or alteration in the angle of the neck. Ring-like masses of bone were thrown out; the articular cartilages were eroded, but the surface of exposed bone was not absorbed. Eburnation took place in the direction in which motion had been preserved. The outgrowths of bone were produced by ossification in the articular cartilage, as proved by the author in a paper read in 1851 (Path. Soc. Trans., vol. iii.), by ossification of the synovial fringes, and by outgrowths from the periosteum. 2. In which atrophic changes predominated, producing in the hip-joint a smaller head and depressed neck of the femur, the nodular outgrowths being less marked. 3. In which the atrophic and hypertrophic conditions were combined. After expressing his belief in the causative influence of rheumatism and gout, the author proceeded to discuss the relation of these joint affections to locomotor ataxy and other nerve diseases, and to contrast rheumatic arthritis with Charcot's disease.

Rheumatic Arthritis.	*Charcot's Disease.*
1. Changes chiefly hypertrophic.	1. Changes chiefly atrophic.
2. Commences in the soft tissues.	2. Commences in the bones.
3. Painful throughout its course.	3. Generally painless.
4. Pain confined to the joint.	4. Pains shoot through the limbs.
5. No febrile disturbance; no gastric or ocular symptoms.	5. All these symptoms are present.
6. Reflex symptoms present.	6. Reflex symptoms absent.
7. Limited mobility.	7. Flail-like mobility.
8. Progress slow and chronic.	8. Progress rapid and acute.
9. Patients often reach old age.	9. Patients seldom reach old age.

The influence of injury in the production of the disease was then discussed, and the paper was concluded with remarks upon treatment, the value of local sweating by means of hot vapour being insisted on, coupled with shampooing and passive movement. The hot sulphur springs of Luchon, in the Pyrenees, were especially commended. — Dr. BUZZARD observed that the results of ordinary treatment in chronic rheumatic arthritis were eminently unsatisfactory, the disease generally going from bad to worse. In some cases of joint disease associated with locomotor ataxy, however, a remarkable regression of symptoms might take place, the patient recovering full use of a hitherto useless limb. In Charcot's disease, again, there was often a remarkable degree of hydrarthrosis of the joints, frequently extending far beyond the joints themselves; extreme weakness of ligaments and a tendency to atrophy in the bones were also to be noted. He thought it probable that by the study of Charcot's disease means would be found to explain the phenomena of rheumatic arthritis. If the disease were due to a central nerve lesion the tissues of the spinal cord might safely be eliminated. The results of sclerosis of almost every part of the cord were well known. Very many of the symptoms combined to indicate the medulla oblongata as the original seat of the mischief; the gastric and laryngeal crises, the heart symptoms, and the sweating all pointed to the probability that the centres for the vaso-motor system and for the osseous and articular system must be situated close to one another. In rheumatic fever, the acute affection of many joints, the high temperature, cardiac disturbance, and sweating all served to illustrate this in a marked degree. He looked upon rheumatic fever as an acute affection of the medulla oblongata, and suggested that chronic rheumatic arthritis might possibly be due to a chronic form of the same lesion. He regarded Charcot's disease as a chronic affection of a certain part of the medulla, spreading to the vaso-motor centre, and causing changes in the nerves supplying the bones and joints.—Dr. CLEVELAND referred to the connexion between alcoholic intemperance and chronic arthritis, and expressed an opinion that alcoholism played a principal part in its production, especially among women.—Dr. W. H. BLENKINSOP believed that the failure of treatment was often due to want of persistence in it, and related a case to prove the value of continued treatment. He advocated the use of dry vapour to produce sweating, in preference to steam.—Mr. GANT expressed his belief in the efficacy of Scott's dressing, and mentioned a case in which the disease so treated had been kept in check for twenty years.—Mr. SPENCER WATSON referred to the occurrence of acute inflammation of the eye in these cases.—Mr. NOBLE SMITH asked whether the same symptoms had been noted in the affections of the hip-joint in later life as were characteristic of the acute affection in childhood? He had had very good results from treatment by iodide ointment, where other applications had failed. He thought that the influence of alcohol was traceable in many of the joint cases in the British Home for Incurables.—Dr. MORTON inquired as to the use of passive movement in treating cases of chronic joint disease arising from injury.—Mr. J. E. LANE mentioned that the atrophic changes in hip- and shoulder-joints, exactly like those of Charcot's disease, were frequently found in dissecting-rooms. He related a case of excessive effusion into the shoulder-joint, in which complete recovery took place, in the presence of locomotor ataxy. The treatment pursued at Aix was most satisfactory, the shampooing especially being very effectively carried out.—Mr. W. ADAMS, in reply, expressed some doubt whether alcoholism had much to do with the production of the disease. In cases where the joint affection was thought to be due to accident there was generally a history of antecedent rheumatism or gout.

Reviews and Notices of Books.

The Optical Manual, or Handbook of Instructions for the Guidance of Surgeons in Testing the Vision of Recruits, &c. Third Edition. By Surgeon-General T. LONGMORE, C.B. London: Clowes. 1886.

SOME eleven years have elapsed since the appearance from the pen of Professor Longmore, of the Army Medical School, Netley, of the second edition of the "Ophthalmic Manual for Army Surgeons," and, considering the value of the trained soldier to the State, the importance to the officers of the medical service of the army of a thorough knowledge of the subject of which the manual treats, cannot be over-estimated, more especially in regard to the rules laid down for guidance in distinguishing optical defects amongst officers and men already engaged in the military services of Great Britain.

As might be expected, in view of the rapid strides that

have been made in this branch of medical science within recent years, Professor Longmore has found it necessary to rewrite and enlarge the present edition, so that practically it now appears in the form of a new work. Chapter I. is devoted to the consideration of the eye as an optical instrument; the hygiene of normal vision is explained, the necessity to the soldier of unimpaired binocular vision in judging and in the use of the rifle is dwelt upon, and the various optical appliances are given and described in detail. In the following chapters the functional pathology of the eye is entered into, and the method of conducting the visual examination of recruits, with an account of the qualities of sight which are requisite, or which lead to disqualification or non-efficiency amongst officers and men in the different branches of the army and of the navy; the various errors of refraction are clearly enunciated and explained, together with their treatment and hygiene, also the method of diagnosing them and the disqualifying degree of each. The chapter on the assessment of ocular refraction is carefully written, and brings home to the army surgeon that he will find an acquaintance with the use of the ophthalmoscope, as a means for gauging the sight value of an eye, as necessary as that of the stethoscope in testing the conditions of the respiratory or circulatory system.

We regret to learn from perusal of the manual that, in consequence of complete sets of trial lenses not being supplied for use in the army, medical officers are unable to have recourse to keratoscopy, which is an invaluable aid in the estimation of visual capacity, and trust that the authorities may be induced to supply a full set to the head-quarters of each recruiting district and each large military hospital.

The mechanism of accommodation is fully entered into, as well as the anomalies of binocular and associated vision; also the relationship of strabismus to myopia and hypermetropia. Part of Chapter V. is devoted to colour-blindness and its detection. The possession of correct ideas regarding colour is of great value in a vast number of callings, and inability to distinguish them may be the source of the greatest peril in case of persons placed on watch, as at sea. The distinction between congenital and acquired dyschromatopsia is clearly explained. The subject of hemeralopia is described under the head of amblyopia, and is of extreme interest to the army surgeon, as, apart from being a symptom of organic disease, it is often met with abroad as a transient condition due to hygienic causes solely, and in the case of the soldier is, of course, a serious disqualification. The important condition of asthenopia, so often connected with ametropic states of ocular refraction, myopia, and hypermetropia, is fully discussed. The necessity to the recruit or soldier of having the visual area intact, as well as the requisite central acuity, is dilated upon, the loss of a portion of the field of vision not only unfitting a soldier for military duty, but may be a symptom of serious progressive disease—a fact which should be borne in mind by all who are called upon to test vision, and especially by the army surgeon.

In the third edition of the "Optical Manual" the Professor of Military Surgery at Netley has placed the principles of the more abstruse portion of modern scientific ophthalmology within the reach of all who have to examine persons seeking employment in the various public departments; and, keeping in view the recent advances in optical appliances and manipulation, and such as have been made in respect of length of range and capacity for firing of the weapon at present in use in the army, has applied them to the actual conditions of service, thus supplying the profession at large and the army surgeon with a valuable *aide mémoire*.

Hernia, and its Radical Cure. By JOHN WOOD, F.R.S., F.R.C.S., Vice-President and Hunterian Professor of Surgery and Pathology in the Royal College of Surgeons, &c. Pp. 124. London: Henry Renshaw. 1886.

THIS admirable little work consists of three lectures delivered by the author at the College of Surgeons in 1885, and a lecture on "The Application of Trusses to Hernia" given at King's College Hospital. Every page is stamped with the well-known acumen of the writer, both as a surgeon and a practical anatomist.

The first chapter is devoted to an analysis of the cases operated upon by Mr. Wood, to the Pathology and Causes of Inguinal Hernia, and to the Anatomy, general and applied, of the Inguinal Region. From this we learn that the author has, in all, operated upon 391 cases: 370 inguinal, 16 crural, and 5 umbilical. "In 11 cases the hernia was double, and both sides were operated on; in 12 cases, operations which at first failed were repeated (in 2 cases three times); making a grand total of 414 operations." In a subsequent chapter we find that out of 339 operations for reducible inguinal hernia 248 operations were successful, and the number of ascertained failures 59; thus giving 73 per cent. of successful cases. Out of 273 cases of the wire operation alone there were only 4 deaths—about 1¾ per cent.,—none of which could be strictly attributed to the special conditions and results of he operation. Of the whole 339 operations by variouat methods there were 7 deaths, or about 2 per cent. In 28 cases, where the sac was tied with catgut and removed and the sides of the canal and rings drawn together, 3 died, or about 11 per cent.—a mortality, as Mr. Wood observes, too great, if maintained, to justify an operation of expediency.

The third chapter embraces the Anatomy and the Operation for Radical Cure of Crural and Umbilical Herniæ, Choice of Cases for Operation, Review of the various Methods of attempting a Radical Cure of Hernia in Ancient and Modern Times, and a Classification of Cases for Selection of Operation. The closing chapter on the Application of Trusses will be read with interest and profit both by hospital surgeons and general practitioners.

The entire work is a closely reasoned argument and critical review of facts; in short, it must be carefully studied by those who would duly appreciate its merits. It shows, if indeed this were needed, that Mr. Wood is *facile princeps* in all that pertains to the curative treatment, of the application of which his recent monograph treats.

"MR. HORSLEY'S CRITICISM OF PROF. SCHIFF."

To the Editor of THE LANCET.

SIR,—There is one little point a trifle weak in Mr. Horsley's wit. The Brown Professor is facetious, not about what Schiff did say, but about what he did *not* say. Professor Schiff, as quoted by me (THE LANCET, Feb. 20th), says: "Now I understand what Mr. Horsley means by the motor tract. He believes that the posterior part of the lateral columns near the posterior horns of the grey substance is motor. This is a very general opinion, against which I shall publish a series of experiments." According to Professor Horsley, however (THE LANCET, March 6th), "Dr. Huggard quotes Professor Schiff (*verbatim*) as saying that although the opinion that the crossed lateral (pyramidal) tract is motor is a very general one, he (Professor Schiff) is going to prove that it has no such function." To find an identity of meaning between what Professor Schiff did say and what Professor Horsley says he said would puzzle anyone.

The experience of Professors Pitthmllnsprts and Horsley is evidently to be trusted. The aforesaid variety of breakfast appears to aid a person considerably in proving a thing "at least to his own satisfaction."

I am, Sir, your obedient servant,

Davos Platz, March 9th, 1886. WILLIAM R. HUGGARD.

THE LANCET.

LONDON: SATURDAY, MARCH 20, 1886.

THE long-expected Report of the Committee on the mode of obtaining the Fellowship of the College has at last been presented to and adopted by the Council, and made public. It is satisfactory to find not only that the rumour of making Fellows wholesale without examination has proved false, but also that some very reasonable changes are proposed instead.

The Council recommend two methods, by the first of which every year a certain number, not exceeding ten, of the Members of the College, of not less than twenty years' standing, who are distinguished by scientific or professional ability, or by good service rendered to the profession or the public, shall be elected to the Fellowship. To such a proposal there can be no valid objection, provided always the recipients are really distinguished for special surgical knowledge, and that not necessarily *ten* are elected *every* year. Such a rule as this will have to be very judiciously carried out, otherwise it will be capable of being used for party purposes, and made to serve other ends than the promotion of the study of the art and science of surgery.

By the second method proposed, Members of not less than fifteen years' standing are to be exempted from the first Professional Examination for the Fellowship—that, viz., in Anatomy and Physiology,—and would be required to pass only the Second Examination, as defined by the present regulations. We think this plan much preferable to the former, and one likely to further the purposes for which the Fellowship was instituted. There are many other causes, over and above want of ability, which may interfere with a student's passing the Primary Examination in Anatomy and Physiology, and it has always appeared to us regrettable that an examination in subjects of minor importance to the practitioner, and which can only be properly studied in the schools, should prove the chief barrier to the acquirement of this highly prized surgical qualification by those engaged in practice. This proposed change in the rules for admission to the Fellowship will be welcome to many provincial surgeons, and afford them the opportunity of acquiring the diploma which their line of practice and their surgical attainments will permit them to wear, without either detracting from its dignity or subverting the purposes its founders had in view when instituting it.

The Council, furthermore, propose to make a new class of Fellows—viz., Honorary Fellows, to consist of persons, whether Members of the College or not, who have rendered distinguished service in the advancement of surgery or the sciences allied to surgery. We hail this last proposal as a most important step forward, as one which will bring the College into something like keeping with other scientific corporations, almost all of which have the power of affiliating to themselves eminent men of any and every nationality. We could wish to see the proposal somewhat enlarged. It would be desirable to fix the *total* of Honorary Fellows rather than limit the number to be elected every year. *Forty* suggests itself as a possible maximum after the manner of some other distinguished bodies. This number would easily be attained, even should the highest standard be insisted on, provided other countries than England were duly honoured and represented. The number once completed, the Council would then fill up vacancies as they occurred.

It is expressly stated that the Honorary Fellows are to be exempted from the payment of fees. This is as it should be. It is something humiliating that the Royal College of Surgeons of England should not only have had to wait until a man like HUXLEY, for instance, had been a Member for twenty years before being able to confer the Fellowship, but also that it should be obliged to demand a fee for admitting the most eminent biologist of the day to a diploma which becomes enhanced in value by being accepted by such a man. Nothing is said concerning the payment of fees by those who become Fellows under the other proposed new rules. It must be taken for granted, however, that, in accordance with the recommendations of the Committee on Charters and Bye-laws (presented to the meeting of Fellows and Members on Oct. 29th, 1885), Members *elected* to the Fellowship will be exempted from the payment of any fees; on the other hand, those Members of fifteen years' standing who decide to offer themselves for examination and pass, will be called upon to pay a fee—an obvious injustice. For both sets of Members will gain about the same by becoming Fellows, while those who pass the examination will deserve even more consideration than those who simply drift in by election. Clearly this question of fees will require reconsideration; a fee ought to be exacted from all who are in practice on becoming Fellows, whether by election or examination.

While we cordially approve the latest proposed changes in the mode of conferring the Fellowship, we cannot refrain from again pointing out how these proposals stultify some previous official utterances concerning these same questions which the Council have promulgated. For example, in the last report presented at the October meeting of Fellows and Members, the Council, in answer to the repeated and persistent recommendation of the Association of Fellows that an order of Honorary Fellows should be instituted, said it could "not recommend the institution of a class of Honorary Fellows." This answer was repeated in December, and yet in March the Council adopts the recommendation, but apparently without acknowledgment of the Association of Fellows. Nor can we forget that, notwithstanding the representation of the Association of Fellows and the views expressed at the meetings of the Fellows and Members, the Council a few months ago publicly announced their determination to take steps to secure the necessary powers for giving effect to proposals which they now tacitly admit to be faulty. Even on so obvious a question as that of Honorary Fellows, the Council have several times decided in the negative. We ought not to reproach the Council for at last deciding to do what is right, and what we have so often advocated in these pages. Nor do we. What we lament is the absence—which this weathercock policy implies—of any political capacity in the Council. There is no intelligent grasp of the situation, nor appreciation of the changes required in the management of the College, and in its

relations with the Members at large in order to place the College *en meilleur rapport* with the natural aspirations of its highly educated constituency and with the altered spirit of the times. The Council appears unable to draw up any adequate and complete scheme of reform, and refuses to accept the help of those who are equally interested with themselves in doing everything possible to strengthen and uphold the position and dignity of the College.

NOT many months ago the profession and the public were startled by the announcement that M. PASTEUR had carried the scientific speculation on the possibility of preventing hydrophobia in the human subject within the range of practical pathology and medicine. There were few then who added expectation to hope that the learned experimentalist would in so short a time make headway against the apparently insuperable difficulties of the situation. To-day, however, it may be truly said that the four corners of the earth are ringing with the record of his brilliant exploits and triumphal progress. People who have had the misfortune to suffer from the bite of dogs, cats, and wolves —mad or otherwise—are crowding to the metropolis of sunny France to undergo inoculation with the attenuated virus of rabies, prepared from the nerve centres of animals recent victims of the deadly scourge. England, Russia, America, Hungary, and other countries, by the aid of State and private enterprise, are sending patients to M. PASTEUR'S laboratory for the purpose of testing the value of his "specific" treatment. Contrary to the dogmas of metaphysicians, who assert that there is always a hostility to new experience, we find votaries ready and numerous to stake the chances of failure, and even of danger, against the possible attainment of immunity from the consequences of an anticipated disease. Nor, considering the horribly grim event which none can contemplate with complacency or foretell with certainty, and the final result of which, when developed, it is doubtful if anyone has hitherto been able to avert, is it surprising that men should hasten to avail themselves of an antidote, be it rational or empirical, of merely vaunted repute or proved efficacy. There is something more, however, than humanitarian sentimentality involved in the consideration of M. PASTEUR'S enterprise—an enterprise destined to lead to one of the greatest achievements of the age, or to end at least in a splendid scientific failure. It must not be supposed, because the author of all this wonderment and admiration stands, as it might appear, upon the fitful tenure of the sufferance of those who look for much and hope for more, yet may nevertheless be as ready to condemn anon, as they are now prepared implicitly to trust, that he has been led to deeds of daring by purely fortuitous circumstances. M. PASTEUR'S reputation, acquired as it has been by years of laborious research and keen logical inference, is a sufficient answer to such an assumption. Moreover, the past history of medicine furnishes analogical grounds for regarding the investigations now in progress as likely to succeed in the long run. Hydrophobia, like small-pox, is a disease arising from the action of a specific poison, and we know what untold good has accrued from the discovery of our own JENNER. Vaccination, or in other words, inoculation with what is practically an attenuated virus, has established itself so firmly in the world's confidence that in most civilised nations it has become a State institution, and that too in spite of long-continued and strenuous opposition. Then there are "many who believe that vaccinia is identical in its nature with variola, only modified by its occurrence in another animal, and there have been many observations and experiments which seem to support this notion" (ROBERTS). It is also known that if "an unvaccinated person inhale the germ of small-pox on a Monday and be vaccinated as late as on the following Wednesday, the vaccination will be in time to prevent small-pox being developed." This is exactly the principle which M. PASTEUR is carrying out, and fortunately the long period of incubation of hydrophobia gives a wider limit to the chances of success from inoculation. Again, hydrophobia is only conveyed by direct contagion, so that the date of introduction of the poison into the system can be fixed with precision—an argument in favour of delaying the inoculation with attenuated virus until infection with the more deadly "cause" has become an accomplished fact. On the other hand, small-pox is almost invariably communicated through the atmosphere, and as there are no immediate effects, the all-important period is not known, and the opportunity of saving the patient from the consequences of the infection is lost. In process of time it may become the fashion to inoculate with the mitigated virus in order to give protection against the possible bites of mad dogs, but at present there seems little likelihood of this practice being established, nor, on the whole, is it desirable. That inoculation for rabies is founded on a scientific basis there seems no shadow of a doubt. It only remains to be seen whether M. PASTEUR can establish as an art what appears as a very plausible theory. Of this we may be sure that, guided by the light of his experiences with inoculation as a preventive against splenic fever in cattle, he will avail himself of every assistance that is likely to bring his task to a successful issue. The public and the profession must be prepared for failures, and not expect more than can reasonably be demanded. For the present we trust that M. PASTEUR will receive every encouragement that the State and individuals can render. The enterprise in the interests of humanity is worthy the man, and M. PASTEUR is perhaps of all men most fitted to carry it out.

THE scheme of the Metropolitan Board of Works for the disposal of the sewage of London was produced at the meeting held on the 12th inst., and an abstract of it appeared in *The Times* the following day. It was contained in a report prepared by the Works and General Purposes Committee, which we trust will be published without delay, in order that impartial criticism may be brought to bear upon it. At present we have only *The Times* abstract, and an interesting, although of course non-official, article which appeared two days later in the *Daily News*, to assist our judgment. The utmost publicity should be given to all the proceedings in this difficult and most important matter, for although they are assisted by distinguished scientific advisers, the members of the Board have no right to affect omniscience. It has frequently happened that other scientific men of no less eminence have differed from those who advise them, and it is clearly right that the public should hear both sides of the question.

We admit at once, and with pleasure, that the Board has been by no means idle. Many interesting experiments have evidently been made, which will be of permanent value, and of which we should be glad to hear more details. A course of action has, moreover, been decided on which will undoubtedly improve matters, even though it does not promise a permanent solution of the difficulty. We urged a short time ago that alternative schemes should be prepared, and to a certain extent this has been done, for it would seem that several modifications are possible in carrying out the system recommended to the Board by their committee, which has therefore to some extent the elasticity which is so desirable. Probably it will be adopted, and we are inclined, on the whole, to hope that it will.

The scheme which it is proposed to apply to the whole of the London sewage may be divided into three operations—namely, precipitation, separation of sludge by filter-presses, and purification of effluent. This is substantially in accord with the recommendation of the Royal Commissioners, and as such we heartily commend it. Each of these operations must be described briefly in order to render our comments intelligible. First, then, the precipitation. This is to be effected by the addition of 3·7 grains of lime, and 1 grain of proto-sulphate of iron to each gallon of sewage, with subsidence for from one to two hours. The chemists consulted by the Board, Sir F. ABEL, and Messrs. ODLING, WILLIAMS, and DUPRÉ, report that the effluent so obtained "would be a very great gain over the discharge of untreated sewage"—a safe enough statement; and that according to their "present impression, little if any additional advantage would accrue either from an increase in the proportions of the chemicals specified, or from a resort to other chemicals which would act merely as precipitants." They add, however, that the effluent should not be discharged into the river "during warm weather at all states of the tide." The treatment of the sludge is the next point. It is to be reduced to the smallest possible bulk by filter-presses, and the cake given away if anyone will take it, and if not carried by steamer to sea and there discharged. Finally, the effluent water is to be deodorised by the method which has found favour in the eyes of the Board—namely, by mixture with manganate of soda and sulphuric acid. We understand that the quantity of crude manganate is to vary from 0·5 to 1·5 grain per gallon, but *The Times* summary is somewhat indistinct on this point. This is the quantity recommended by the above-named chemists, who, however, are doubtful whether any disinfection is necessary in cold weather. Another precaution has already been taken, and it is proposed to continue it under the new system. At thirteen stations on the lines of the great sewers manganate of soda and sulphuric acid are added with a view to prevent the formation of sewer gas. If this really averts this dangerous source of mischief the expense is well warranted, but we confess to considerable incredulity on the point. If, on the other hand, it is not effectual, there is great danger that a false sense of security will be engendered.

Such is an outline of the methods by which, in all probability, the sewage of London will before long be treated. That they would effect a vast improvement in the condition of the Thames is certain, and we by no means assert that any better system is for the present forthcoming. It is, therefore, in no unfavourable spirit that we approach the task of criticism. To begin with, we are rejoiced to find that precipitation and sludge-filtration are to be the basis of the system. They have given satisfactory results wherever they have been properly tried. As to the chemicals selected we are not so certain, and have no evidence before us that the committee have sufficiently considered the rival claims of the many mixtures which have been proposed. The well-known A B C process, for example, gives an excellent effluent, and it would be interesting to know on what grounds it had been rejected. The process has been worked for many years at Aylesbury, apparently with success, and the experiments made so many years ago at Crossness do not warrant its contemptuous dismissal. The disposal of the pressed sludge is another important point. It is, we suppose, unlikely that farmers will take it, even as a gift, in such enormous quantities as the Board will produce it, and so it must go to sea. The important argument of Sir J. B. LAWES, however, suggests that even in this case it is not necessarily lost, for it may, if well distributed, improve the fisheries along the coast, by supplying the phosphates which go to form the fishes' bones. The Board propose to provide large ships for this purpose—a purpose which at first sight appears wasteful.

As to the disposal of the effluent, we quite agree that it must be disinfected somehow before it goes into the river. At present the sewage must be treated at the existing outfalls, for the danger of the present system is urgent, and some chemical disinfectant must therefore be used. Whether permanganic acid is the best we cannot say; possibly it is. But although it is inapplicable at Barking and Crossness, land-irrigation is a better means of purifying sewage-effluent than any chemical disinfection; and when the sewage goes down to Sea Reach, as we trust it will before many years are past, the final purification will probably be done by the soil, and an almost perfectly pure effluent thrown into the river. The committee are, indeed, so enamoured of their permanganate disinfection, that they have quite given up the idea of moving from their present outfalls. They say, on the authority of the chemists who advise them, that "the necessity for land-filtration no longer exists, and thus the great objection to the treatment of the sewage and the discharge of the effluent at the present outfalls is overcome." To this we most strongly demur. We are more than ever convinced that the sewage of all London ought not, even after chemical treatment, to be thrown into the river at Barking and Crossness; and we decline to receive on this point the assurance of certainty from chemists who three years ago were equally sure that no important injury was done to the river by the raw sewage. We are sorry that the Board persists in this obstinate resistance to the recommendations of the Royal Commission. They have been forced into their present action, after a hard fight, by the pressure of scientific and public opinion, and now, instead of giving in gracefully and obeying the wish of the nation, they contest every inch of ground in their retreat.

THE modifications which, after about a year's experience, it has been found necessary to introduce into the First Examination of the Examining Board in England constitute

another step towards the improvement of the medical curriculum, the need for which we have several times pointed out. This examination, as originally framed, comprised two parts—namely, Medical Botany, Chemistry and Chemical Physics (meaning thereby Heat, Light, and Electricity), Materia Medica and Pharmacy forming the first part, for which it was not obligatory on the candidate to have received instruction at a medical school; and Elementary Anatomy and Physiology, for which a six months' study at a medical school was requisite. The changes advised by the Committee of Management, and adopted by the Colleges, include (*a*) the entire omission of Botany from the subjects of examination and the medical curriculum; (*b*) the option allowed to the candidate of taking Materia Medica and Pharmacy either with his Second Examination or with his First, and (*c*) the subdivision of the First Examination into three parts—namely, (1) Chemistry, including Chemical Physics; (2) Materia Medica and Pharmacy; and (3) Elementary Anatomy and Physiology. Since these alterations are to come into force at once, it may be useful to point out their bearings upon medical education.

The disappearance of Botany from the medical curriculum is the inevitable result of the growth of this science and of other more important subjects. As a part of the examination in question it had shrunk to ridiculously small proportions, but its elimination will be felt as a relief by the medical schools as well as by the medical student. The amount of botanical knowledge which the average medical student has hitherto gained is so small as to be practically valueless. Still we trust that this exclusion from the curriculum does not mean the entire banishment of the subject, and once more we would urge that both branches of Biology should be included in the subjects of Preliminary Examination. A lad who intends to study medicine ought to enter the medical school with some previous knowledge of science, and there is no hardship in requiring evidence that he has passed through a period of scientific training, whether at school or after, but at all events previous to his being eligible for a place on the Medical Council's Register of medical students. One argument for the retention of Botany in the curriculum is its practical advantage in the recognition of poisonous plants, but plainly such instruction as is needed for this purpose should find a place in the course of Toxicology. Botanical science cannot be taught any longer within the walls of medical schools, and the curriculum must not be overweighted by it; but as a subject of preliminary education it finds its appropriate place. It must be confessed that the same arguments apply to the study of Physics and Inorganic Chemistry. Although the Colleges do not demand evidence that the student has received his instruction in these subjects at a medical school, the fact that they include them in their First Professional Examination will tend to perpetuate the system of instruction so long in vogue. We are of opinion that both Physics and Chemistry, being subjects which require special laboratory instruction and a very complete training, are not in themselves necessary portions of strictly medical education. Their relegation to purely preliminary education would do much to develop that higher and more specialised chemistry which is termed Animal Chemistry, physiological and pathological. It is notorious that at the present day attendance upon the classes of Physics and Chemistry is regarded by the medical student, unless he have really a bent in their direction, as irksome and unprofitable. It is regrettable that this should be so; for a knowledge of these subjects is essential to a proper understanding of physiology and medicine. Very differently would these instructions be received were they so framed as to be directly applicable to purely medical work; and, therefore, in once again advocating their removal to preliminary education, we are sure that we are advising what is best in the cause of medical study. We venture, then, to urge upon the Committee of Management the serious consideration of the propriety of instituting a Preliminary Scientific Examination *before* registration; and the only reason that we can imagine why this step has not hitherto been taken, is the dread lest by making the entrance into the profession more difficult the number of entries will be much diminished. Such fears are groundless, for a year spent in scientific education is the best preparation for the student's subsequent career,—whilst the present plan, by which, to all but a few, the pursuit of these sciences compels interference with the natural course of professional study, is obviously detrimental from the scientific as well as the medical point of view.

The retention of Materia Medica and Pharmacy as part of the First Examination would matter little if the Natural Sciences were excluded; but it is quite plain that the grace allowed to candidates to defer these subjects to their Second Examination has been forced upon the Colleges by the disastrous issue of the original scheme. The examiners have found that the knowledge of Materia Medica exhibited by candidates has been very defective; with every latitude the rejections have been very high, and the derangement of the student's curriculum proportionately extensive. Since, however, the synopsis includes some knowledge of the medicinal action of the drugs, it would seem more appropriate to allow this subject to be taken with the subjects of the Second Professional Examination, as is the case in the universities; and doubtless the student who enters the schools without any previous knowledge of pharmacy will be advised to defer his attendance upon these classes until his second summer session. By that time he will be prepared to receive instruction upon the medicinal properties—or rather, we should say, the natural action—of drugs with reference to the normal functions of the body; he will study the subject with intelligence, and not by the method of cram. In conclusion, we believe that by these revised regulations the Colleges have taken one step towards a rational system in respect of the earlier education of the medical student; but that these changes must only be regarded as foreshadowing a bolder and wiser policy is to be hoped, and indeed expected, from such esteemed authorities on medical education as Sir H. PITMAN, Professor MARSHALL, and the other members of the Committee of Management.

THE answer which the President of the Local Government Board gave last week in the House of Commons to a question by Mr. GIBB, concerning the influence of the small-pox Hospitals at Hampstead and Highgate, is not calculated to satisfy those persons who reside in the neighbourhood of these or other small-pox hospitals in the metropolis. Mr.

CHAMBERLAIN began by pointing out that his Board had no control over the Highgate Hospital, which was maintained by voluntary contributions; and his answer reads as if this were held to be a sufficient reason for the non-interference with an institution which there is too much reason to fear is a cause of loss of life in the north of London. Again, concerning the Hampstead Hospital, he refers to the "expensive litigation" to which it has given rise; as if this were evidence that the effects of the institution upon the public health had not been entirely overlooked. It might not unreasonably be argued that if due regard had been had for these effects, expensive litigation would never have resulted, and certainly, from the ratepayers' point of view, the expenditure of a large sum of money in a contention from which the public derived no benefit might have been conveniently replaced by the expenditure of a much smaller sum in an investigation into the effects of aggregation of cases of small-pox. Mr. CHAMBERLAIN'S answer is, indeed, only useful in one sense. It serves to show Londoners the hopeless condition in which they are placed for want of a central sanitary authority competent to consider these hospitals in their relation to the public health, and not as mere houses for the accommodation of certain sick persons; and it serves to show in its worst light the effect of government by boards which fail to see that the mere carrying out of Acts of Parliament in their legal sense is not the only duty which should be undertaken by authorities claiming to be enlightened.

There is no manner of doubt that a very serious responsibility rests upon the Local Government Board. This Board has had under their notice the expensive litigation in connexion with the Hampstead Hospital, and all the evidence that was forthcoming at the hands of the lawyers who conducted the inquiry. They have had before them the report of their own inspector, Mr. W. H. POWER, as to the mischief done by the Fulham Hospital. They have had the results of an inquiry by a Royal Commission, and a further report from Mr. POWER, showing, as regards Fulham, that, notwithstanding the adoption of some of the Commission's recommendations, the Fulham Hospital has still been mischievous in its effects. But this is not all. Their own medical officer has, in his report for the year 1884, pointedly directed their attention to the fact that 'there are not a few indications subsequent to the report of the Commission of 1881 tending to the conclusion that the asylums hospitals in their present shape continue to cause an increase of small-pox in their several neighbourhoods." Nevertheless, the President does not hesitate to tell the House of Commons that since the termination of legal proceedings "the managers have secured an additional area of land in connexion with the site," as if this fact were reason for hoping that the further use of the hospital would not be detrimental to the health interests of the inhabitants of its neighbourhood!

This method of dealing with a subject which is related to the very existence of many people is emphasised by the action of the Metropolitan Asylums Board. A few weeks ago a special committee of this Board, appointed to consider the subject of hospital provision for small-pox, presented their report. This report contains a considerable amount of argument upon the question whether it is more economical to erect a completely new building at Darenth, or whether certain existing structures can be utilised; but from beginning to end there is not a single line upon the all-important question whether the hospitals at Hampstead, Fulham, Deptford, Homerton, and Stockwell are a cause of loss of life to the inhabitants of these districts, notwithstanding the fact that the several medical officers of health of the parishes in which or near which these institutions are situated have definitely shown that there is reason for believing this to have occurred.

There has indeed been too much delay in dealing with this matter. If the issues involved were merely the unwise expenditure of public money, we should be slow to concern ourselves further with it, but the squandering of human life which results from the adoption of a policy which can serve no good end is too serious a consequence to be passed by. Mr. GIBB'S question and Mr. CHAMBERLAIN'S answer in the House of Commons will, we hope, be the means of forcing this subject upon public attention; we trust it may not again be forgotten before it has received a satisfactory settlement.

THE Council of the Hospital Sunday Fund has determined that the question of sectarian nursing is not one for them to settle. Not only by the rules of the Fund, but by its very nature and constitution, there is no room for the discussion of such a question. It is the very glory of the Council to consist of men of every variety of creed, who have agreed, for the sake of helping the hospitals, to sink all sectarian differences and give way to the common religious instinct to befriend the poor and heal them of their sickness. It is an Old Testament representation of the Almighty that "He gives strength to the languishing and makes all his bed in his sickness." Hence it happens that the Bishop of LONDON and Professor MARKS equally feel the desire and the duty to co-operate in this great work. It is gratifying to find that the churches of London generally agree with the Council in this view of their duty to subordinate sectarian questions for the sake of discharging the urgent duties of catering for the sick poor. Many of the dissenting churches feel keenly the exclusion of their members from the nursing staff because of their non-conformity. But, to their great credit, they will adopt other means of removing this disabibility than by withholding their collections from the great Hospital Fund of June. One of these means is by fair and frank discussion of the question in proper places; and one of those proper places is in the rooms of the Hospitals Association. Accordingly, on Wednesday last, with Sir ANDREW CLARK fitly in the chair, Dr. GEORGE W. POTTER discussed this matter by answering this question, "Is the nursing at the London hospitals sectarian?" Dr. HARE, it may be remembered, justified the exclusive system of nursing by a sisterhood in the University College Hospital by arguing that in most of the other large hospitals the nursing was more or less sectarian, though in only one other is it by a sisterhood. Dr. POTTER contests this representation and adduces tables and facts to show that there is much more freedom than Dr. HARE'S statements implied. He has inquired of sixty hospitals and

has received fifty answers, of which the following may be accepted as a summary:—

"1. Those hospitals at which the nursing is undertaken by a religious sisterhood. To this class only three metropolitan hospitals belong. 2. Hospitals having no special religious services of any kind. Of these there are seven. 3. Hospitals at which family prayers are conducted by the matron, or ward-sister, or a nurse—fourteen. 4. Hospitals where services are conducted by an honorary or paid chaplain, who is a clergyman of the Church of England—fifteen. 5. Hospitals where the nurses attend a neighbouring parish church—one. 6. Hospitals where the nurses attend a place of worship of their own choosing—one. 7. Hospitals where prayers are read night and morning by the inmates, and a short service is conducted on Sunday afternoons by a layman—one. This classification accounts for forty-two of the fifty replies given. Of the eight unaccounted for, four may be placed in one or other of these classes, though the replies were received too late for more definite classification. The other four are University College, the German Hospital, the Lock Hospital, and the French Hospital, Leicester-square. The table at the end of the paper gives full information concerning all the fifty."

Dr. POTTER'S tables do not include St. Bartholomew's. But this lack was well supplied in the discussion of the paper by Miss MANSON, the matron of St. Bartholomew's, who spoke on the invitation of Sir ANDREW CLARK. She showed that the nursing of St. Bartholomew's was quite satisfactory, though unsectarian, and that the supply of candidates was far more than the demand. The facts elicited by Dr. POTTER are satisfactory. In all the hospitals but four—the German Hospital, the French Hospital, University College, and the Lock—the nursing appointments are open to suitable persons of all religious denominations. We do not judge those of other nationalities. But our own countrymen who cultivate sectarianism in nursing may well consider whether they serve their hospitals by keeping up an exclusiveness which offends, and without which other institutions are as well nursed as their own. University College Hospital is now almost the only London hospital in which nursing by an exclusive sisterhood remains.

Other speakers took part in the debate. All expressed satisfaction with the fact, demonstrated by Dr. POTTER'S tables, that the rules generally were of an unsectarian character. Mr. NIXON and Mr. HOLMES defended the arrangements of University College Hospital on the ground of their success, and maintained that the question was one of no public importance so long as persons of all creeds were admitted. Dr. GLOVER admitted that the nursing was well done in University College Hospital, but not better than in other hospitals where a different system obtained. He argued that it was of great moment to remove every prejudice against hospitals from the public mind, though he quite believed that the authorities of University College were actuated by consideration for the welfare of the patients. Sir ANDREW CLARK thought much good would result from Dr. POTTER'S inquiries. He deprecated too much "individualism" in estimating the claims and work of hospitals. He admitted the necessity to guard against any appearance of sectarianism, but thought that the least sectarian arrangement in English hospitals was the moderate ascendancy of the services of the English Church.

Annotations.

"Ne quid nimis."

THE DEATH OF DR. AUSTIN FLINT.

IT is with deep regret that we have learnt of the death of America's most distinguished physician, Dr. Austin Flint, which occurred on Saturday last, from cerebral apoplexy. Dr. Flint was so widely known in this country, and so highly esteemed both for his personal qualities and his excellent work, that there will be many on this side of the Atlantic who will join very really in the sorrow of those among whom he has lived and toiled. Dr. Flint was an indefatigable worker. We believe that he commenced practice and lecturing in Buffalo, but promotion soon came to him, and he was called to the Bellevue Hospital and Medical School, where for many years, and up to the time of his death, he was Physician and Professor of Medicine and Clinical Medicine. In both of these capacities he toiled hard and successfully; his class was always crowded, and up to the last he prepared for it most carefully, to keep both himself and his hearers thoroughly abreast of the ever-progressing science and art which he loved. In addition he had a very large private practice, for his great experience, his sound judgment, and his kindly manly nature, made him the chosen consultant of a very wide circle. As a writer Dr. Flint exhibited great diligence. His treatise on the Principles and Practice of Medicine has passed through five editions, and is a worthy memorial of the man. It is a faithful indication of the care with which he set about all his work that, when he had to prepare the last edition, he sought the aid of a special pathologist, Dr. Welch, and committed to him the whole of the sections dealing with pathology. This work has been very popular, and is remarkable for the great amount of information condensed into a comparatively small compass, and for its accuracy. It was in diseases of the chest that Dr. Flint took the greatest interest, and he was the author of a very valuable work founded on the notes of 670 cases of phthisis observed by himself; he also wrote a Manual of Auscultation and Percussion, and published some lectures on the same subject which he delivered in Philadelphia in 1882. He did more than any other physician to develop this department of practical medicine in America, and he never wearied of demonstrating, writing, or lecturing upon his favourite theme. He was an ardent advocate of the binaural stethoscope, but among his choice treasures he kept a simple wooden stethoscope made by Laennec's own hands. Dr. Flint was the President elect of the International Medical Congress, which is to meet next year in Washington. The preparation for such a meeting necessarily devolved much work upon him, and the unfortunate division of opinion, which at one time assumed somewhat alarming proportions and imperilled the success of the Congress, not only increased the work very greatly, but added to it an element of pain, which pressed with crushing weight upon the sympathetic and generous nature of Dr. Flint. His friends cannot but fear that his valued life has been shortened by this strain, and a special bitterness is imparted to their sorrow by the reflection that he has not been permitted to realise his brightest hopes in connexion with the Congress, or to conduct to a successful issue the project in which he took so keen an interest. Dr. Flint was a frequent visitor to Europe, and his handsome presence was well known in London and many of our chief medical centres. He had arranged to deliver the Address in Medicine at the forthcoming meeting of the British Medical Association. As a physician Dr. Flint represented all that is best in the

American character, his influence for good was very wide, and his loss is correspondingly severe. But only those who have enjoyed the high privilege of his friendship, and have experienced his unfailing courtesy and generosity and his tender manliness of heart, can rightly appreciate the gap his death causes.

ASSIMILATION OF NITROGEN IN DEBOVE'S "CRAMMING" METHOD.

DR. M. G. KURLOFF of St. Petersburg has published a series of observations undertaken with the view of discovering the chemical changes consequent upon the employment of Debove's "cramming" or "forced feeding" system in phthisical patients. He made six experiments on five patients, who previously to the "cramming" were losing weight, with bad appetites, diarrhœa, pyrexia, and cough, with sputum containing Koch's bacilli. The "cramming" (which in some cases was carried out by means of a stomach tube, as practised by Debove, and in some without, as has been recently recommended by Peiper) lasted for from three to eleven days, during which period careful estimations were made of the nitrogen excreted in the urine and fæces, similar determinations being made during the three days preceding and the three days following the treatment. The quantity and nature of the food were also noted; and from these data and from various analyses of food made on purpose the quantity of nitrogen ingested and excreted was determined and the amount assimilated calculated by subtracting the latter from the former. The material used in the "cramming" process consisted of pulverised meat, from which all the liquid portion had been previously expressed in the manufacture of meat juice, mixed with milk so as to form a drink of somewhat greater consistence than ordinary chocolate. Of this mixture 700 cubic centimetres were given at a time, some 400 grammes of the meat powder being thus introduced into the stomach during the day. It was calculated that this contained as much nitrogen as 3½ lb. of fresh meat. The patients were, however, not confined to the mixture, but were encouraged to supplement it with milk, bread, and biscuits. The mean daily nitrogen ingested was about 54 grammes, which is as much as is contained in 1600 grammes (3½ lb.), the maximum being as much as 80 grammes, corresponding to 2400 grammes (5½ lb.) of fresh meat. The effect of this huge quantity of nitrogen was to increase the breaking down of the albuminous constituents of the body, as shown by the increased excretion of nitrogen in the urine, which averaged about 34 grammes, the maximum being 56 grammes, whereas, previous to the "cramming," it had only ranged from 9 to 16 grammes. An increase also occurred in the percentage of ingested nitrogen which was assimilated, and a much more marked increase in the assimilated nitrogen relatively to the body weight. Taking one instance, the percentage assimilation was before, during, and after the "cramming" 84·9, 92·7, and 82·6 respectively, and the mean assimilation, expressed in grammes per kilogramme of body weight, was for the same three periods 0·24, 0·89, and 0·29. Thus during the "cramming" the nitrogen assimilated increased more than threefold, and was slightly more afterwards than previously. Even after the short period during which the treatment was continued, which was undertaken more for experimental than for curative purposes, the patients' appetites increased remarkably: they not only ate the whole of the ordinary hospital ration, but asked for more, though previously they had left a considerable portion of their food. The body weight also increased nearly 1 lb. a day, the increase continuing even after the special feeding was discontinued. Altogether Dr. Kurloff fully confirms the results Dr. Debove and others have obtained by this method of treating consumptives. The cough and expectoration diminished, the diarrhœa and night sweats ceased, and the patients felt a great deal better, so that some of them left the hospital and returned to their respective employments.

KING'S COLLEGE HOSPITAL.

ON Friday, the 12th inst., at the invitation of the Lord Mayor, a meeting was held at the Mansion House in aid of the funds of this hospital. There is an annual deficit of about £5000 over the annual income. Donations and subscriptions have kept up to the average amount, but during the past five years legacies have fallen from £6000 to £1000 a year, and this has necessitated the forced sale of much of the invested capital. It would be a very severe blow to a most important school, associated with names like Todd, Budd, Bowman, Farre, Priestley, and Fergusson in the past—not to mention the present staff—if retrenchment should have to be carried much further, and the beds fall below 150, the limits of the qualifying bodies. At present 170 are in daily occupation, and are filled with absolutely clinical cases, for distress in the Seven Dials and adjoining districts is too severe to permit of any but the most urgent cases being admitted. The claims of the hospital and of the medical school were well put forward by the Duke of Cambridge, the Archbishop of Canterbury, the Bishop of London, Lord Grimthorpe, Messrs. W. H. Smith, Hubbard, Alderman Sir R. N. Fowler, and others, and we would advise the authorities of the hospital to publish their speeches as a special appeal. We cannot doubt that when the charitable public are really aware of the urgent needs of this hospital, the teachers of which are in the front rank of our profession, a cordial response will be accorded, even in these times of severe commercial depression.

THE SHOP HOURS' REGULATION BILL.

A SELECT COMMITTEE of the House of Commons have already met to discuss the clauses of the proposed Shop Hours' Regulation Bill. Notwithstanding some difference of opinion, there seems to be a general agreement on the part of the promoters of the Bill, as well as of employers and employed, to whom it is intended to apply, that this measure is called for, and that it can best be carried out by definitely fixing a closing hour. A general allotment of twelve hours daily as working time, it is said, would prove a less satisfactory arrangement. There is also a strong desire on the part of tradesmen that on Saturdays and market-days late hours should continue to be the rule, as much business is done in the evening on these days. The evidence of Mr. Redgrave, chief inspector of factories, on this subject is instructive. Besides supporting the propositions to which we have referred, he is further of opinion that licensed houses and refreshment-rooms (as under the Factories Acts), and also the shops of butchers, bakers and chemists, should be excepted from the proposed new legislation. The poor, he maintains, have some advantage in the cost of food by shopping late. We should be sorry to lessen their profit in this particular; at the same time, the interests of assistants must also be considered; and there seems to be much force in the suggestion made by Mr. Fry, that to leave licensed houses open long after other shops had closed might almost amount to an advertisement in favour of the former. The cry that restriction of time would hurt the interests of junior assistants, since only persons under eighteen years of age are to be affected by it, has not, according to Mr. Redgrave, been justified by events in the case of factories and workshops. We are pleased to find that the same gentleman is in favour of some form of official inspection. We have always inclined to the belief that with this, as with any

other enactment bearing on the conduct of trade, inspection is a logical and needful part of the legal process, and that it should not imply an offensive closeness of supervision. The fact that shopkeepers generally hail the expected regulation of their business hours may in itself, we think, indicate a readiness on their part to accept a certain degree of official oversight. Wholesale houses, it is to be noted, do not take kindly to the present wording of the Bill. They complain that their work is very irregular in its duration from day to day, and varies between the wide limits of nine and fifteen hours in the twenty-four, and they would therefore prefer a weekly or monthly rather than a daily regulation. They prophesy dismissal of apprentices and damage to trade should the Bill become law. On the other hand, a letter lately published informs us that the figures above stated do not, in one such house at least, represent the true state of matters. There the assistants work during slack times for twelve hours daily, and in the busy season for fourteen or fifteen. It does not, therefore, seem very clear that wholesale houses deserve the discretionary power as to daily working time which they seek. If we look at the Bill as a whole, we cannot but feel, while admitting its value, that it goes hardly far enough. Thus there seems no good reason why adults as well as youths should not be included within its range. Overtime work may sometimes be allowable for such, but if so, it should not on that ground be considered as acquitted from possible restriction, otherwise the exception may become the rule, and adults have to make good the leisure granted to their juniors. We miss also some arrangement which will concede to shopmen the weekly half holiday now common in many callings. If we turn again to the proposed exceptions, there seems no great necessity for most of them. Let refreshment bars at places of entertainment be allowed to close late, and enough will probably have been done for public convenience. Because a shop is closed it need not follow that it is barred against emergencies. The messenger of an invalid, for example, may be served by a chemist even after he has retired for the night, but in order to meet such urgent cases it is not necessary to attract custom of every kind by keeping open shop. For these various reasons we would hope that further evidence may assist the committee in framing a measure somewhat wider even than that which now lies before them.

THE UNDOING OF A DEED OF GOODNESS.

THE pity of it! After opening up a way of return and providing a place of repentance for the most pitiable lost class of our great mixed community, and extending the blessings of the healing art to those who have perhaps the very least claims on the sympathy and help of their fellows, a rampant spirit of that self-righteousness which affects to find an excuse for refusing to do good lest evil should come has succeeded in undoing all that mercy has achieved. The crazy and fatuous agitators against the Contagious Diseases Acts have clamoured at the office doors of a weak Government and profited by the impressibility of a sentimental majority in a scratch House of Commons. Henceforward, forsooth, that we may not run the risk of seeming to countenance vice by dealing kindly with the vicious, disease and immorality in their most revolting forms are to riot in the midst of our army, navy, and the civil population of garrison towns! When will the weak-minded sentimentalists of this nineteenth century cease to worry the life out of humanity with their whimperings? It is too late to treat this subject as involving a question for serious argument. It has been conclusively demonstrated that the Contagious Diseases Acts were of marked value to the interest of health and morals. It remains only to bemoan the fatuity which has allowed them to be set aside.

M. JULES VERNE.

THE many admirers of M. Jules Verne were distressed to hear last week that he had been attacked by his nephew, and had received a serious bullet wound of the leg. The ball has buried itself in the tibia, and we learn that a prolonged but unsuccessful attempt to remove it has been made, and that the wound has been left open in the hope that the ball may be spontaneously discharged. Probably in this there is some error. It is a common popular notion that the safe extraction of a bullet removes the chief danger of a gunshot injury. This is, of course, not the case. The main element of danger arises from the injury inflicted by the bullet in its path through the tissues, injuries which are only rarely benefited by the extraction of the offending missile. Then follow secondary, and scarcely less formidable, perils arising from inflammation in the track of the ball, occasioned in part perhaps by the direct injury of the tissues, but to a much greater extent by irritating and poisonous materials finding access to the wound or generated therein. The removal of the bullet does not directly lessen the danger from this source. Still the extraction of a ball is important; it is often essential to the proper treatment of the deeper parts of the wound; and even when no acute mischief follows the injury the mere presence of the ball may cause such a degree of chronic inflammation as will prevent the closure of the wound. The two cases of bullets long imprisoned in the lower end of the femur which were lately recorded in our columns by Sir W. Mac Cormac aptly illustrate this, and the excellent results which followed extraction in those cases will, we hope, be attained in the case of M. Jules Verne. For we hope soon to hear that he has submitted to a second and successful operation.

LOCAL DISTRIBUTION OF SUICIDE IN ENGLAND AND WALES.

IN the discussion that followed the reading of Dr. Ogle's recent paper on "Suicides in England and Wales" before the Statistical Society, it was pointed out that the local distribution of suicide was a subject not devoid of interest, although this branch of the subject was not dealt with in the paper under discussion. Dr. Ogle, in his reply, called attention to the difficulty of obtaining a sufficient basis of facts to yield figures trustworthy for comparative purposes for such populations as inhabited many of the English counties. Whilst fully admitting the validity of this objection to suicide-rates for small populations, some available figures may be referred to which are useful in throwing light upon the varying death-rates from suicide in different parts of England and Wales. It appears from the Decennial Supplement recently issued by the Registrar-General that the annual death-rate from suicide in the ten years 1871-80, which was equal to 71 per 1,000,000 persons living in England, did not exceed 41 in Wales. With reference to this low rate from suicide in Wales, it may be pointed out that in Cornwall, where the population shows affinities in race to that of Wales, the suicide-rate was almost identically the same, 40 per 1,000,000. On the other hand, the rates in the counties on the borders of Scotland exceeded the general English rate. Apart from the low suicide-rates prevailing in Wales and in Cornwall, it would appear that the death-rate from this cause is governed to a large extent by the proportion of the urban element in the population. In the eleven registration divisions the rate from suicide in the ten years 1871-80, without correction for differences of age and sex distribution, was highest, 85 per 1,000,000, in London, and 81 per 1,000,000 in the south-eastern division, containing the counties of Surrey, Kent, and Sussex, which contain a large proportion of the metropolitan suburban population. The high rate in Sussex is mainly due to the exceptionally

large proportion of suicides in Brighton, Hastings, and other seaside holiday resorts, which are practically seaside suburbs of London. The next highest rate from suicide in the registration divisions prevails in the north-western division, consisting of the counties of Lancashire and Cheshire, which next to London includes the largest proportion of urban population. At the other end of the scale are the Welsh and the south-western registration divisions, with suicide-rates of 41 and 58 per 1,000,000 respectively. Whether the low rate in Wales be due to race characteristics, or to the fact that the population of the greater part of the principality is mainly rural, further investigation would alone determine, although the facts now available decidedly point to the more marked influence of race upon the suicide-rate. The south-western division contains the counties of Wiltshire, Dorsetshire, Devonshire, Cornwall, and Somersetshire; and although the rate from suicide was only 50 in Dorsetshire, 51 in Wiltshire, and, as has before been stated, 40 in Cornwall, it was 65 in Somersetshire and 69 in Devonshire, the two latter counties containing larger proportions of urban population. It should be pointed out, however, that in several essentially rural counties the rate from suicide was scarcely below, while in some it was above, the general average; for instance, the rate was 69 in Norfolk, and 81 in Suffolk and in Lincolnshire. One of the most remarkable exceptions, however, to the usual relation between the proportion of the urban element in the population is the county of Durham, where the rate from suicide was only 49. This low suicide-rate in Durham appears to be due to the fact that miners show, in comparison with other occupations, a most remarkable freedom from suicidal tendency.

SNAKE-POISON AND HYDROPHOBIA.

MEDICINE is one of those subjects about which it is never safe to predicate any absolute statement. Anyone may make an assertion in medicine which at first sight appears to be as preposterous as anything can well be; and yet the nature of medicine is such that second thoughts may render the assertion not altogether so absurd as at first appeared. Some correspondence has been in progress in our columns on the alleged antidotal effects of snake-poison and the virus of rabies. In the month of January Dr. G. C. Roy contributed an original article to THE LANCET, in which he contrasted the physiological actions of snake-poison and the symptoms of rabies, and suggested that the venom of the cobra should be employed to counteract the morbid phenomena of rabies. The suggestion is by no means an original one. But it is not the claim of originality that subsequent correspondents—chief amongst whom is Mr. Vincent Richards—have so much interested themselves. The matter appears to them in a somewhat ridiculous light. Confessedly the suggestion cannot be said to rest on any scientific basis, for even the physiological contrast instituted by Dr. Roy hardly lends support to his well-meant proposal. A valuable small work by Mr. Vincent Richards, entitled "The Landmarks of Snake-poison Literature," collects together a large number of facts concerning snake-poisons,[1] and reviews the more important researches into their nature. To those who wish in the compass of 150 pages to become acquainted with the anecdotes, fallacies, opinions, original researches, mode of treatment, and in fact every phase of snake-poisoning, we heartily commend this little book; it is written in a cheerful vein, albeit it is occasionally warlike and severe in its method of dealing with opposite views. It is far better, in the interest of everybody and everything, that the truth should be plainly told. We have no antidote to snake-poison when once this has fully entered the system. If the venom can be confined to a part by means of a ligature, then permanganate of potash in a 5 per cent. solution is an efficient destroyer of its power. Halford's advocacy of ammonia in the treatment of snake-bite is conclusively shown to be a fallacy. Fontana in the last century had also discovered the inefficacy of ammonia. The truth appears to be that if an insufficient dose of the venom be administered, the animal lives whether stimulants, alcohol, or ammonia be given or not. Mr. Richards goes further than this, and shows experimentally that ammonia, if anything, increases the rapidity of action of a fatal dose. In the controversy at Melbourne doubt seemed to exist amongst some as to the symptoms of snake-poisoning. Mr. Richards asserted that in the cases of recovery from snake-bite the symptoms observed were the effects of alcohol administered in large doses. That the intellect in snake-poisoning remains unclouded to the last is the testimony of the most competent observers. The physiological researches of Weir Mitchell, Reichert, and Wolffenden are justly esteemed as of the highest value, whilst at the same time forming a new departure in our knowledge concerning the nature of powerful poisons. Snake-poison, from the cobra at all events, contains three kinds of albumen—a proteid, a globulin, and a peptone. Differences still exist as to the precise chemistry, but the globulin appears to be the most powerful poison, and acts by paralysing the respiratory centre of the medulla.

[1] Calcutta: D. M. Traill, British Indian-street. 1885.

THE EAST WIND.

THAT the "east wind" has from the earliest times been credited with evil influence is apparent in the fact that Ephraim was described in one of the most ancient of the Jewish traditions as feeding upon it. What a repast! Modern science has determined that what we call the east wind is really a current of air from the north, its direction being modified by the rotatory movement of the earth. This is not difficult to understand. The avidity with which the dry cold wind from the north takes moisture, and particularly the secretion of the mucous membrane lining the air-passages, inspissating the mucus, and, as it were, gluing together the cilia of the epithelium, is the real cause of the malignancy of the "east wind." We have repeatedly explained this fact, and pointed to the use of a succulent jujube or something which will give off moisture in the mouth to be carried into the air-passages with the inspired air as the best of practicable measures of protection. We believe that if only the habit of keeping a morsel that gives off aqueous vapour—not one that dissolves by taking up moisture—in the mouth during the time of exposure to the east wind were formed, there would be very few colds from that cause.

"MEMORY, NATURAL AND ARTIFICIAL."

WE have received an interesting little pamphlet on "Memory, Natural and Artificial," by Mr. F. W. Edridge Green. The paper was originally read before the Abernethian Society in St. Bartholomew's Hospital. It treats in a suggestive manner of the nervous action concerned in the repetition of muscular movements, and of sensory impressions, as due to the development of a function akin to intellectual memory in the corpus striatum and optic thalamus respectively. Reflex automatism in which the basal ganglia participate is fairly regarded as an expression of the completed stage of this form of memory. Passing on to the higher manifestations of the same faculty in its relation to mental operations, Mr. Green finds, in common with other observers, that decisive localisation is as yet an unaccomplished possibility. He quotes numerous cases of loss or excellence of special forms of memory, however, which may hold out a dim prophecy of greater exactness

in the future map of cerebral structure with regard to function. The paper closes with some valuable hints on the cultivation of memory. These are briefly given as follows:—"Concentrate your attention, classify and condense, make associations, substitute letters for figures, and localise your ideas."

THE EDINBURGH MEDICAL MISSIONARY SOCIETY.

WE have read the annual report—the forty-second—of this Society with much gratification. We have the conviction—very beautifully expressed by the late Professor Alison of Edinburgh, in an essay on medical missions—that the science and art of medicine are to be greatly used by Christian men in their efforts to extend Christianity and civilisation among the less favoured nations of the earth. This conviction is confirmed by every report of the work done by medical missions, whether in China, India, or Africa. Of all missionary societies having claims on medical men or on the public, none has stronger claims than the Edinburgh Medical Missionary Society, as the oldest one of the kind, and the most efficient. It has a training school for medical missionaries, in which students learn the nature of medical missionary work among the poor. It has mission stations in India, Nazareth, and Damascus. The institutfon in Agra incorporated with this Society serves as a training school for native medical missionaries, who, by the kindness of Sir William Muir when Lieutenant-Governor of the North-West Provinces of India, receive their medical education free at the Government Medical College. The encouragement of the medical education of natives is evidently one great means by which we can confer enormous benefits on Eastern nations. A kind friend of medical missions has offered to bear one half of the expense for three years of establishing a Christian medical school in Japan, where the Government now gives licences to practise only to those who pass an examination in Western science. The Edinburgh Medical Missionary Society is not connected with any one Church, but supplies legally qualified missionaries to the various missionary societies. It is a great credit to the Edinburgh school, which may have its parties and even its differences, but has, too, its practical Christianity, which is felt through this Society in every part of the world.

DEATH FROM ETHER, OR NOT?

WILL some of our older surgeons tell us the frequency with which death occurred in ante-anæsthetic days, just before the operation began, from the shock of fear added to the exhaustion produced by previous agony. A case—that of Mr. George Harling, of Lockwood, near Leeds—has just occurred, in which a patient suffering from cancerous obstruction of the bowels and peritonitis begged for the only operation that could give any relief—that of colotomy,—though Mr. Teale expressed his opinion that it could only be of temporary benefit. In deference to the importunity of the patient the operation was about to be performed. He had not taken more than three or four inhalations of ether when he threw himself back, breathed once or twice, the pulse suddenly ceased, and the patient died. Mr. Hall, the practitioner in attendance, gave it as his opinion that the death was not caused by ether. At the post-mortem, besides the appearances of peritonitis and malignant disease, a fibrinous clot was found in the right ventricle attached to the tricuspid valve. The jury returned a verdict of "Death from natural causes." We concur fully in the justice of this verdict. Possibly the slight agitation incident to the operation and the administration of the ether, with a fibrinous clot already in the heart, might contribute to the fatal issue, which could not, however, have been deferred many hours.

PROPOSED AMALGAMATION OF THE SANITARY INSTITUTE AND THE PARKES MUSEUM.

THE Councils of the Sanitary Institute of Great Britain and the Parkes Museum have mutually agreed to a proposal to amalgamate and reconstitute the two institutions into a new body, to be incorporated by a Royal Charter under the title of the Sanitary Institute and Parkes Museum. The matter is now in the hands of the Fellows, Members, and Associates of the respective institutions. A decision will probably be definitely arrived at on March 25th. It is pointed out that the aims and scope of the two Societies are in many respects the same, though each possesses functions peculiar to itself, but which might, the Councils think, with advantage be shared by both. The institutions were each started exactly ten years ago; they already possess one and the same secretary and place of abode, and their respective numbers of members are pretty much alike. It is urged that by amalgamation the prosperity as well as the utility of the Societies would be largely promoted. If the union is definitely decided upon, an application will be made to the proper quarters for a Royal Charter to found the new institution.

THE POISONS ACT.

WE understand that it is the intention of the Government to propose a revision of the regulations affecting the sale of poisons. It is generally admitted that the Act as at present administered is unsatisfactory, inasmuch as the list of articles included in the Schedule of Poisons is singularly incomplete, whilst the formalities connected with the retailing of certain popular poisons, which it would be superfluous to name, are practically inoperative. The question of including nitro-glycerine in the list of prohibited articles has for some time past occupied the attention of the Crown. It is universally recognised that it is a most valuable medicinal agent, but it must be admitted that its introduction into the British Pharmacopœia in the form of a sweetmeat was an egregious blunder. Either the 1 per cent. alcoholic solution, which is in constant use by medical men, will have to be substituted for the objectionable and dangerous chocolate drop now so commonly advertised as a popular remedy for neuralgia and seasickness, or its indiscriminate sale to the general public will have to be restricted. The other articles proposed to be added to the list are lobelia, nitro-benzol, savin, and their preparations, together with the soluble oxalates. It is a remarkable fact, in view of certain recent legal proceedings, that chloroform is not mentioned. On the other hand, the frequent fatalities following the unrestricted use of carbolic acid as a disinfectant have not escaped notice, and the necessity for including it in the second part of the schedule is again being forced on the attention of the Privy Council.

THE PARENTAL "DON'T."

SOME parents are continually checking their children. Others, again, seem to have hardly will enough to chide or deny them anything. A little work which has reached us, and which bears the above title, seeks to instruct fathers and mothers how to steer a middle course between these difficulties and to ensure a successful future to their offspring. Success, in the words of the author, implies more than financial distinction. There must be true and equal development of the physical, mental, moral, spiritual, and commercial side of life in order to deserve the term. His advice to this purpose is on the whole very sensible, and is given in a terse but interesting style, which renders the paper agreeably readable as well as instructive. We note with satisfaction that he dissents from the present high-pressure

system of school education, and would rather train the mind of childhood than fill it. Physical exercise receives due attention. Practical hints on the teaching of morals and religion are not wanting. A somewhat lengthy section is devoted to home hygiene and the rearing of infants. The observations contained in this chapter are well considered and accurate. We could wish that all parents were equally clear in their understanding of the value of milk alone as an article of infant diet, on the injurious effects of close, hot rooms, long and heavy clothing, empirical sedative remedies, overcrowding, and drainage deficiencies. We do not doubt that readers of this pamphlet will learn from it some points of use in the training of children which they don't know at present.

THE LATE PROFESSOR MARCOVICI.

THE Roumanian medical journal, *Spitalul*, announces the death, at the age of fifty, of Dr. Al. Marcovici, Professor of Clinical Medicine and Dermatology in the Faculty of Medicine of Bucharest. The deceased professor received his early education in various schools in Roumania, whence he went in 1853 to Paris, where he took the degree of Bachelor of Science two years later. He then entered as a medical student, and distinguished himself by gaining medals and by obtaining a post as interne in the Bicêtre. He worked under Sée, Robin, and Grisolle, and greatly distinguished himself in his thesis for the doctorate, which was on the different kinds of pleuritic effusions and their medical and surgical treatment. He afterwards returned to his own country, where he was appointed professor in the University of Bucharest. He wrote various works and papers on Quinine in Malaria, Acute Granular Phthisis, Diabetes, Cholera, &c. He also took part in several important international medical congresses, where he represented his country, in those of Brussels and Amsterdam being nominated honorary president. He was also present in a representative capacity in the congress held in London in 1881.

DR. CLOUSTON ON CHANGES IN THE FORM OF INSANITY.

DR. CLOUSTON advances some opinion on the variations of type in mental disease which, while admitting the authority of his opinion, we are not disposed to accept without further evidence. They are the views of an able superintendent of an asylum, but they cannot, in the nature of things, express the result of more than a limited series of observations. We think Dr. Clouston lays too much stress on alcoholism as a cause of insanity, and we venture to doubt whether general paralysis is actually decreasing. On the contrary, it seems to be more common than heretofore. The recognition of "mental disease," so-called, in the aged is very much an affair of economic policy even in Scotland.

MEDICAL HEROISM IN RUSSIA.

A CASE of heroic self-sacrifice of medical men has just occurred at Kharkoff. A patient was brought into the lunatic asylum with hydrophobia, who was so violent that he had to be put into a sack and carried along by gens d'armes. All the attendants refused to touch the unfortunate man, declaring that they would rather lose their situations; whereupon two of the medical officers, Drs. Gutnikoff and Davidoff, themselves undertook to wash him and attend to him, though he was in the filthiest condition and covered with vermin. They managed after some time to get him somewhat cleaner and calmer. However, in one of his paroxysms, he bit Dr. Gutnikoff in the finger, and bespattered Dr. Davidoff's hand and eye with his saliva. The man did not live through the night. The two doctors are considered to be in great danger, and the principal, Professor Kovlefski, has written to Pasteur about them. It seems, however, that they have no funds to enable them to undertake such a long and expensive journey. Perhaps, however, public or private generosity may step in, or, as they are Government officials, it is conceivable that the Imperial treasury may be opened for the purpose.

HEALTH OF THE PRINCESS OF WALES.

WE have authority for stating that the health of her Royal Highness the Princess of Wales is not such as to cause anxiety. After her Royal Highness's late illness at Sandringham, Torquay was proposed for change and fine air at this season. The Princess has lately had a common cold, which, together with the inclemency of the weather, has prevented the usual carriage exercise.

AMPUTATION OF THE THIGH UNDER COCAINE.

DR. VARICK of New Jersey records in the *New York Medical Journal* of Feb. 20th a case in which he employed cocaine as a local anæsthetic for amputation of the thigh. The patient was a man aged thirty-nine, who was admitted to hospital with a compound fracture of the leg. An attempt to administer ether caused such alarming symptoms that it had to be abandoned, and Dr. Corning was requested to employ his method of confined injections of weak cocaine solutions while the limb was removed above the knee-joint. The result is stated to have been most successful; the division of the skin and deeper soft parts occasioned no pain, but during the sawing of the bone the man complained loudly of pain. A solution of 1 per cent. was used for the skin, and a solution of half this strength for the deeper parts: the report does not state the exact amount of the solutions that was injected. Such a case as this shows us that in cocaine we have a local anæsthetic of extreme value, and which, under certain circumstances, can successfully replace general anæsthesia even in the gravest surgical operations.

MERCURIAL DISINFECTION OF ROOMS.

PROFESSOR ROUIG recommends that in epidemics of cholera, typhoid, small-pox, &c., the chambers which have been occupied by the patients should be disinfected by means of fumes of corrosive sublimate in the following manner. The room is closed and a vessel of live coals placed in the middle. Upon this fire about two ounces of sublimate are thrown, and the room is not opened for three or four hours. The most careful covering up of mouth and nose is necessary on entering to open the windows. After free ventilation has been continued for several hours, the remaining traces of mercury may be rendered innocuous by fumigating with sulphur.

CHOLERA IN BRISTOL IN 1885.

IT will be remembered that during the past year it was alleged that a case of cholera found its way into Bristol. We have Mr. Davies's annual report for 1885 now before us, and it supplies us with authentic details as to the occurrence. A sailor from on board a vessel infected with cholera in Marseilles harbour travelled direct to Bristol and died there very soon after his arrival, the coroner's jury finding that he died of symptoms resembling those of Asiatic cholera. Mr. Davies, whose experience of cholera in a former epidemic enables him to speak with very considerable authority on the subject, expresses his firm conviction that the disease of which this man died was "true Asiatic cholera" contracted at Marseilles, and, so far as preventive measures are concerned, he acted according to this conviction. The body was covered with disinfectants and imme-

diately buried, articles that could have become infected were destroyed, and possible pollution of the local well-water was dealt with by removing the handle of the pump which was in the room where the corpse lay. The incident supplies two lessons:—Firstly, the uselessness of the quarantine measures resorted to by the French authorities at Marseilles in preventing the diffusion of cholera by human intercourse; and secondly, the immense advantage of trust in sanitary measures such as have for years past been in progress in what was formerly a cholera locality, and of the immediate adoption of measures of sanitary precaution, which cannot be secured in a moment of panic, but which are the natural outcome of a properly organised system of sanitary organisation.

THE LATE DR. ALFRED C. POST OF NEW YORK.

THERE is a wonderful harmony in the tribute paid by all the New York medical papers to the late Dr. Alfred C. Post, who died at the ripe age of eighty-one, but who was expected to have lived and worked much longer, and would have done so but for a sudden and sharp sickness. He had performed a very successful ovariotomy only four months before his death. He was the nephew of the celebrated Dr. Wright Post, the friend of Percival Pott, Cooper, Abernethy, &c., and the father of Dr. George E. Post, the able surgeon and devoted missionary of Beirut. He was happy, too, in his early education, in which piety and culture were combined. He was a good classical scholar, but his chief delights were in religion and surgery, and he once said, in no irreverent spirit, that the two things he enjoyed most were a surgical operation and a prayer meeting. Dr. Post of Beirut was in London last summer. Eager to be back at his Syrian work, and assured of his father's health, whom he had not seen for eighteen years, he resolved to defer the pleasure of visiting him to another year. The father has been translated sooner than either expected, but in the exercise of the same beneficent art and with the same religious spirit Dr. Post will find consolation.

NERVOUS SEQUELÆ OF SMALL-POX.

WE would draw special attention to the interesting paper contributed by Drs. Whipham and Myers to the last meeting of the Clinical Society. The interest of the subject lies simply in the fact of the occurrence of disorders of articulation after the small-pox has disappeared. Small-pox, like other acute specific fevers, is liable to be followed by various nervous sequelæ, either of cerebral, spinal, or peripheral origin. Dr. Barlow and Dr. S. Mackenzie contributed some interesting cases occurring after small-pox and during measles. We have much yet to learn concerning the disorder of articulation of which living specimens were exhibited the other night. Dr. Hughlings Jackson was inclined to locate the lesion in the medulla oblongata, and to regard its nature as of thrombotic order. However, at present there is but little to be said that is definite.

SUBJECTS FOR DISSECTION IN RUSSIA.

DIFFICULTIES are frequently experienced by medical schools in this country in obtaining sufficient subjects for dissection, and we are apt to envy continental schools which appear to us always to enjoy a profusion. This is not, however, invariably the case. The University of Dorpat is at present considerably agitated by an order which has been made stopping the supply which had hitherto been obtained from the hospitals and prisons of St. Petersburg. Subjects from these sources are in future to be monopolised by the Military Medical Academy of St. Petersburg, and as the towns in the Baltic provinces where Dorpat is situated are of very moderate dimensions, considerable difficulty will be experienced in satisfying the needs of the constantly increasing number of students.

AMENDMENT OF THE MEDICAL ACT.

IT is announced in the middle of an almost unprecedented political crisis that a Medical Bill will be introduced. Of course, whenever such a Bill appears, it will receive from us fair and even favourable consideration. In the meantime it seems to us scarcely credible that any Bill can be passed just now pretending to meet the recommendations of the Royal Commission or the reasonable wishes of the profession.

PROFESSOR TYNDALL.

SIR WILLIAM GULL informs us that Professor Tyndall has for a long time suffered from sleeplessness, which at length, with hard scientific work, has much prostrated the nervous system. It is to be hoped that he will now take a long rest, which is so much needed for his restoration.

THE SUNDAY CLOSING BILL.

WE regret the miscarriage of this measure. No one who has medical knowledge can doubt that a great curtailment of drinking and the hours for drinking would be for the advantage of this country, and that work on Monday would be infinitely better resumed if there were less drinking on Saturday nights and Sundays. The Bill has the support of the people, but the forms of Parliament are capable of abuse, and of enabling it to prevent good being done.

REFORM OF THE UNIVERSITIES OF SCOTLAND.

NINE HUNDRED of the graduates and members of the Council of the University of Glasgow have memorialised the Secretary of State for Scotland in favour of amending the constitution of the Universities of Scotland, so as to give more power to the general body of graduates, and to break down the monopoly of university teaching. There is much to be said for careful changes in this direction.

A NEW ELEMENT: GERMANIUM.

MR. CLEMENS WINKLER writes to the Chemical Society from Freiburg, Saxony, under date Feb. 21st, that he has discovered in the mineral argyrodite a non-metallic element closely related to arsenic and antimony, and that he has named it germanium. Argyrodite is a new mineral discovered at Freiburg by A. Weisbach, consisting of silver, sulphur, and germanium.

FOREIGN MEDICAL APPOINTMENTS.

DR. A. BOICESU has been appointed to the Professorship of Zoology, and Dr. Maldarescu to that of Clinical Medicine, in the University of Bucharest; also Dr. Rizu to the Chair of Therapeutics in the other Roumanian University, Jassy. Dr. L. Turnas, of St. Petersburg, has been appointed Professor of Pharmacology in Warsaw. Dr. G. Albertotti has been appointed Professor of Ophthalmology in Modena.

THE Museum and Lecture-rooms Syndicate of the University of Cambridge have issued a report containing earnest appeals from Professor Foster and his assistant lecturers for more space, which is sadly needed for the proper teaching of physiology. The plans already approved for the new buildings provide for more accommodation for the physiologists, but they are not yet taken in hand, and the object of the report is to hasten their commencement.

THE late Mrs. Curwen, who recently died at Brighton, has left, in the event of her daughter dying without issue, £40,000 to St. George's Hospital, on condition that one of the wards be named the Ewing Ward, and that the money be kept as a separate fund. The testatrix also bequeaths £5000 each to the Great Northern Hospital, St. Mary's Hospital, and All Saints' Seaside Convalescent Hospital, Eastbourne; £2500 each to Westminster Hospital, Charing-cross Hospital, the London Fever Hospital, the Royal Free Hospital, the London Hospital, the Cancer Hospital, Middlesex Hospital, Queen Charlotte Lying-in Hospital, the General Lying-in Hospital, the City of London Lying-in Hospital, the National Hospital for the Paralysed and Epileptic, the Royal Westminster Ophthalmic Hospital, the Hospital for Sick Children, Great Ormond-street, and the North-Eastern Hospital for Children, Hackney-road; and £500 each to the Victoria Hospital for Children, and the Belgrave Hospital for Children.

WE regret to learn of the serious illness, from pneumonia, of Dr. Imlach. The Medical Institution have resolved to postpone their meeting for the discussion of certain letters on the action of the Society in regard to the frequent performance of laparotomy. Whatever may be thought of this operation and of the circumstances calling for its performance, there can be but one opinion as to the propriety of the resolution of the Medical Institution. We sincerely trust that Dr. Imlach's recovery will be prompt and complete, for his own sake and for the sake of a right judgment on this important question in surgery. The profession will certainly feel that the proper thing is to suspend judgment.

A MEETING of the Governors of Wellington College was held at Marlborough House on Monday, the 15th inst., with the Prince of Wales as President. It is to be hoped that, among other matters, the present condition of the health of the boys was considered, owing to the number excluded from classes through illness. We have before called attention to grave and preventable illness among the boys, masters, and servants in the past, and again direct attention to the necessity for a full and impartial inquiry into the sanitary state of the institution.

THE number of physicians in Germany averages 1 to 3025 inhabitants. Their distribution, however, is very uneven, the cities and watering-places being especially well supplied. In Bonn there is 1 medical man to 440 inhabitants, in Weisbaden 1 to 558, in Berlin 1 to 1063.

SOME of the proprietors and licensees of houses for the reception of lunatics are not satisfied with the Lunacy Acts Amendment Bill of the Lord Chancellor, and have petitioned that the measure may be referred to a Select Committee, where they may be heard by counsel.

THE Prince of Oldenburg, Commander of the Russian Imperial Guards, intends to found an establishment at St. Petersburg for the treatment of hydrophobia by inoculation, and preliminary experiments are now being made.

DR. HERBERT TYRRELL GRIFFITHS, Medical Registrar of St. George's Hospital, was on the 12th inst. appointed Visiting Physician to the Seamen's Hospital, Greenwich, vice Dr. Carrington, resigned.

A REMARKABLE case of total ablation of the arm and scapula, followed by recovery, is fully reported in the *Journal de Médecine de Bordeaux* by Dr. Loumeau.

ELEVEN cases of cholera, seven of them terminating fatally, are reported to have occurred in the neighbourhood of Padua, and three cases, resulting in two deaths, near Rovigno, in Istria. Elaborate quarantine precautions are to be taken previous to the landing at Toulon of the French troops from Tonquin.

PROFESSOR VON FRISCH, of Vienna, a pupil of Dr. Koch, has been appointed to go to Paris and study M. Pasteur's system, at the expense of the committee which has been formed in that city to found an institution for the cure of rabies.

AT a meeting of the Senatus of Aberdeen University, on the 6th inst., the degree of LL.D. was conferred upon Patrick Manson, M.D., Hong-Kong, China, and Sir Samuel Rowe, M.B., C.M. Aberd., K.C.M.G., Governor-General of Sierra Leone.

A NEW publication devoted to the subject of pharmacy has been published at Melbourne, entitled the *Australian Journal of Pharmacy*.

ON the 16th inst. the French Academy of Medicine voted 10,000 francs to the Pasteur Institution.

DR. GERVIS has been appointed Consulting Physician to the Royal Maternity Charity.

THE CEREMONY ON THE EMBANKMENT.

ON Wednesday next, the 24th inst., Her Majesty the Queen, as already announced, will graciously lay the foundation-stone of the Examination Hall to be erected by the Royal Colleges of Physicians and Surgeons conjointly on the Thames Embankment. The site chosen, which belongs to the Duchy of Lancaster, is situated just to the west of Waterloo-bridge, between Savoy-street and Savoy-hill. The building, which will be square in form, has a frontage of 150 ft., and will, including the basement, contain five floors. The ground floor will be occupied by clerks' offices, the smaller examination-rooms, and private rooms for the examiners. The first and second floors will be identical, each comprising a large examination-room 100 ft. by 30 ft., capable of division into two apartments should this be necessary, and two rooms, one at either end, measuring 60 ft. by 21 ft. An apartment for chemical examinations will be provided on the third or top storey, with every requirement for technical work, and here also will be found rooms for anatomical and various purposes. With regard to the exterior, the main front will be in Savoy-place, overlooking the Thames. There will be three entrances, from Savoy-place, Savoy-street, and Savoy-hill, each being furnished with staircases leading up to the top storey. The materials used in the façades are to be principally red brick and Portland stone, and the style will be Italian. Mr. Stephen Salter, of Woburn-place, is the architect, and Messrs. Higgs and Hill the contractors. Although the space at the disposal of the authorities is necessarily extremely limited, we are glad to see that every possible effort has been made to accommodate all grades of diplomés of the two Colleges. The College of Surgeons, owing to the great number of its Fellows and Members, has had to have recourse to the "hazard of the die," the number of available tickets having been divided between the two Colleges. The College of Physicians has thus allotted their share—viz., Fellows 140, Members 130, and Licentiates (taken we believe in order of seniority) 200. We are gratified to see that the suggestion we made last week with regard to the latter has been thus liberally responded to. The result of

drawing lots at the College of Surgeons will probably give room, over and above those holding office in the College, for about 260 Fellows and 130 Members. The deans of the medical schools of the eleven metropolitan hospitals have been asked to nominate a member of each of their schools to act as a steward on the occasion. A guard of honour will be formed by the Volunteer Medical Staff Corps and the field officers' guard of the Artists' Volunteer Corps (mainly consisting of medical students). Considering the small space at their disposal, the authorities must be congratulated on their excellent endeavours to accommodate all who have a just claim to be present on an occasion which will ever be a memorable one in the history of British medicine. We append the programme of the details of the ceremony.

PROGRAMME.

All visitors are requested to be in their places by 12 o'clock.

The band of the Scots Guards will play a selection of music at intervals until Her Majesty the Queen arrives.

At 12.15, the President and the two Vice-Presidents of the Royal College of Surgeons of England and their officials will enter in the following order:

An Usher with the College Staff.

The Assistant-Secretary, Frederic Greville Hallett, Esq., bearing the Charter and Bye-laws of the College.

The four Senior Members of Council:

Sir James Paget, Bart., F.R.C.S., D.C.L. Oxon., LL.D. Cant.
Sir T. Spencer Wells, Bart., F.R.C.S., F.K.Q.C.P. Ireland.
John Marshall, Esq., F.R.C.S., F.R.S., LL.D.
Edward Lund. Esq., F.R.C.S.

The Secretary, Edward Trimmer, Esq., M.A., bearing the College Seal.

The Conservator of the Hunterian Museum:
Professor Charles Stewart.

The Porter, carrying the Mace.

The President of the Royal College of Surgeons of England—William Scovell Savory, Esq., M.B. Lond., F.R.C.S., F.R.S.

The Senior Vice-President—John Wood, Esq., F.R.C.S., F.R.S.

The Junior Vice-President—Henry Power, Esq., M.B. Lond., F.R.C.S.

Their Insignia of Office having been deposited on a table prepared for them, the President and the two Vice-Presidents will take their appointed places in the arena, and the others will retire to their seats.

At 12.20 the President and the two Vice-Presidents of the Royal College of Physicians of London and their officials will enter in the following order:

The Porter of the College with his Staff.

The Assistant-Registrar, William Henry Allchin, Esq., M.B.Lond., F.R.C.P., bearing the Charter and Statutes of the College, bound in crimson velvet adorned with silver. (This copy was presented by Dr. Caius, President of the College in 1555.)

The Four Censors:

Senior Censor—Samuel Osborne Habershon, Esq., M.D. Lond., F.R.C.P.

Second Censor—William Henry Stone, Esq., M.B. Lond., F.R.C.P.

Third Censor—James Edward Pollock, Esq., M.D. Aberd., F.R.C.P.

Fourth Censor—William Howship Dickinson, Esq., M.D., Cant., F.R.C.P.

The Treasurer, Dyce Duckworth, Esq., M.D. Edin., F.R.C.P., bearing the Keys of the Chest.

The Registrar, Sir Henry Alfred Pitman, M.D.Cant., F.R.C.P. bearing the Seal of the Corporation.

The Bedell, Mr. William Gurner, carrying the Mace.

The President of the Royal College of Physicians of London, Sir William Jenner, Bart., K.C.B., M.D.Lond, F.R.C.P., D.C.L. Oxon., LL.D. Cant. and Edin., F.R.S.

The Senior Vice-President, Edmund Lloyd Birkett, Esq., M.D.Cant., F.R.C.P.

The Junior Vice-President, John William Ogle, Esq., M.D. Oxon., F.R.C.P.

Their insignia of office having been deposited on a table prepared for them, the President and the two Vice-Presidents will take their appointed places in the arena, and the others will retire to their seats.

At 12.25 the President of the Royal College of Physicians and the President of the Royal College of Surgeons will retire to receive Her Majesty the Queen at the entrance.

On the Queen's arrival the band will play the National Anthem, and the guard of honour formed by the Volunteer Medical Staff Corps and a field officers' guard of the Artists' Volunteer Corps will receive Her Majesty with a Royal salute. The Queen will be met by the Secretary of State for the Home Department, the Chancellor of the Duchy of Lancaster, the President of the Royal College of Physicians, and the President of the Royal College of Surgeons. Two verses of the National Anthem will be sung by the Savoy Choir. Prayer will be offered by his Grace the Archbishop of Canterbury.

Then will follow the presentation of the Address, to which Her Majesty the Queen will graciously reply.

The President of the Royal College of Physicians and the President of the Royal College of Surgeons will each deposit below the stone to be laid a sealed glass vessel containing coins of the present year, some daily papers, and a copy of their respective College lists.

The Queen will then proceed to lay the Stone, the trowel being delivered to Her Majesty by Stephen Salter, Esq., architect of the building.

Presentations will be made to Her Majesty the Queen by Sir William Jenner, Bart., K.C.B. The Archbishop will then pronounce the Benediction and the Queen will leave, the band playing the National Anthem and the guard of honour giving a Royal salute.

DECREASE OF GENERAL PARALYSIS IN EDINBURGH.

THE following passage of general medical interest occurred in Dr. Clouston's annual report of the Royal Edinburgh Asylum at Morningside for 1885, read at the annual meeting of that corporation, held in the Council Chambers, Edinbugh, on Feb. 22nd, 1886, the Lord Provost presiding.

"In addition to this economical cause (increase of rates of board) of decrease of our pauper lunacy (fifty new cases a year), I have reason to think that in the past five years there has been a real diminution of mental disease. In my last year's report I pointed out that the proportion of cases of the disease due to alcoholic excess did not appear to have been greater in the five years of plenty 1873-77 than in the five lean years 1880-84, and this year contributes the usual alcoholic quota of over 15 per cent. But instead of taking a prominent cause of insanity like alcohol, if we take a more definite test—viz., the most marked of all forms of insanity, general paralysis, a form perfectly distinct from every other—we get a result that undoubtedly points to a real diminution of brain disease with mental symptoms in the past five years. General paralysis is more commonly than any other form directly produced by wrong habits and modes of life. Its causes appear most vividly by the fact that it is the form of insanity that comprises one-sixth of all the mental disease among the Durham miners in prosperous times. It is, in fact, that form that is least dependent for its production on hereditary and unpreventable influences, and most dependent on controllable causes operating during the life of the individual. Now, in the first five years of my occupancy of my present office, 1873-1877, mostly years of plenty and inflation of wages, we had 115 cases of general paralysis sent here out of 1580 of total admissions, or 7·3 per cent. of the whole; in the last five years, 1881-1885, years of dull trade and little money to squander, we had only 75 cases out of a total of 1667 admissions, or 4½ per cent. Such a fall in the prevalence of any important and typical disease, comparing one period of five years with another, is a most striking fact from a medical point of view. And whether this has resulted from lessened opportunity of drink and dissipation, or greater exercise of self-control, or a lessened excitement in the modes of life, it is a most suggestive social fact. I think the prevalence of general paralysis may fairly be taken as the index of the prevalence of preventable insanity. While there is a greater proportion of insane persons to the general population of the same years between fifty and sixty (1 to every 160), the largest proportionate number of the newly occurring cases of insanity every year is found between the ages of forty and fifty. During the last thirty years the average age of the new cases (the admissions to asylums) has steadily increased. The conclusion from this

would seem to be that the older parts of the general population are getting more subject to mental disease than they were. I think this would be fallacious. I believe the fact to be simply that more people in their restless and troublesome dotage and after paralytic shocks are now sent to asylums, and so come under the category of technical insanity than formerly. There is, however, a variety of mental disease connected with advanced years which it is my impression is becoming more common of late. It is not the typical senile break-down in mind occurring after seventy, but a very sudden break-down soon after sixty, or even before that, in men who have worked hard and continuously, their work perhaps accompanied by excitement, strain, worry, or too high living. It is, in reality, climacteric insanity in the male sex, rather than senile insanity proper."

MEDICAL ORGANISATION IN THE FIELD.

SURGEON-MAJOR EVATT, medical staff, delivered a lecture at the Medical School, Queen's College, Birmingham, on Wednesday, the 10th inst., on the Medical Arrangements of an English Army Corps in the Field. He explained by means of diagrams the organisation of an army corps, and then detailed the medical system. Beginning at the front line in battle, he explained the journey of an ideal soldier of the Warwickshire Regiment, struck down on the field, through various stages, until he finally returned to Birmingham. He illustrated by sketches the battalion aid, the bearer companies of the division, the *personnel*, equipment, and system of the field hospitals, the working of sick convoys, of stationary hospitals on the communication line, of the base hospital with its heavy pressure of work, the journey to England in the hospital ships, and finally the home landing. Turning now to the volunteer service, Dr. Evatt pointed out its complete inefficiency from the medical, commissariat, and transport points of view, and then he dwelt on the methods by which the medical service could be made more efficient. He proposed that every county should have an extension of the existing battalion aid, a definite bearer company, and a field hospital manned by the volunteer medical staff corps. Such companies should be grouped into an administrative battalion for the military district, with an officer of the medical staff of the army as adjutant, and a brigade surgeon of volunteers as commandant. The whole to be under the command of the military principal medical officer of the district, in the same way that the volunteer engineers are under the district commanding engineer. Surgeon-Major Evatt then suggested that with the view of training officers for this volunteer medical corps, the students, while students, should receive the drill and discipline of the medical staff corps, as volunteers, so as to be fit for the position of officers when they have passed their medical and surgical examinations. These may be gone through with honour by a junior, who, for want of special training, might be of comparatively little use in charge of men in the field. It is a singular fact that while Birmingham and the surrounding populous district is a fertile recruiting-ground for the army and navy, only a comparatively very small number of the local medical students enter the public service. This point was specially dwelt upon by Professor Bennett May in seconding a vote of thanks to Dr. Evatt, which was proposed in eloquent and flattering terms by Professor Oliver Pemberton.

THE BOYLSTON PRIZE.—The Boylston Medical Committee, appointed by the President and Fellows of Harvard University, have selected the following as subjects for the essays for this prize in 1887:—The Identification of Human Blood in Suspected Stains, and Original Investigations on the Pathology of so-called Uræmic Symptoms. The author of a dissertation on either of the above subjects considered worthy of a prize will be entitled to a premium of $200.

BOSTON INFIRMARY.—At the annual meeting of the subscribers to and friends of this institution on the 11th inst., it was reported that during the past year there had been a large increase in the number of in-patients, which amounted to 687, being 187 in excess of the previous year. The expenditure amounted to £4199, a sum which exceeded the income by £541.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Hastings Urban District.—This district experienced last year the lowest death-rate for a period of eleven years—namely, 14·2 per 1000 living; the death-rate under one year of age reached only 9·9 per cent. of the registered births; and the zymotic rate of 1·27 per 1000 was also exceptionally low. Small-pox had to be dealt with at the sanatorium, and just as the epidemic appeared to be decreasing it broke out again, chiefly, however, in the rural district. This, as Mr. Knox Shaw says, is not within the jurisdiction of the urban authority, but if, as he seems to imply, the disease was due to spread from the urban hospital, it behoves the town authorities, although they received patients from the rural district, to deal with the matter even more than if the disease had solely extended to their own district. We fear, from the character of the so-called sanatorium that was in use at the time, that the complaint which has been made as to this is very likely to have some foundation, and we should advocate its abandonment. Already a temporary structure has been provided, and it is to be hoped that no further attempt will be made to repeat the experience of the past year as regards the isolation of small-pox in the old sanatorium. From the working of a sunshine recorder, it would appear that 1885 exhibited a marked improvement on the previous year in the number of hours of bright sunshine recorded.

Halifax Combined Districts.—Dr. Britton, in drawing attention to the action taken with a view of preparing this combined district against cholera importation, very properly reminds the authorities that all such preparations fortunately tend, quite irrespective of cholera, to the benefit, both present and future, of the district where they are adopted, and that hence none of the trouble and expense taken and incurred are thrown away. This is essentially true; and some of the sanitary work which has saved most life in this country has resulted from improvements intended primarily to cope with impending importations of disease, which were fortunately warded off. The separate reports addressed to the several constituent authorities contain information as to disease and death, and as to the sanitary circumstances which prevail and need remedy. At Brighouse, for example, the authority are commencing excellent work with a view of improving the existing methods of privy accommodation; they have also very properly relieved the occupiers of the duty of cleansing and emptying receptacles for filth and refuse, but it has been done by contract, and this system is obviously one which can never be expected to work as efficiently as when the authority themselves undertake the task. Another point adverted to, and which is of practical importance, is that of the drainage of cellars. Dr. Britton points out that, apart from very exceptional circumstances, cellars should not be drained, since the traps, even when efficiently constructed, are apt to get dry, and then they favour the admission of foul drain-air direct into the houses. Cellars should be under-drained, so as to keep the subsoil dry; but they need have no means of drainage for their surface, for such water as is used in cleansing them can easily be taken up by cloths or otherwise during the process. The details of the report are of much local interest, and they are sufficiently complete to supply a good deal of useful information. In his general report Dr. Britton adverts to the fact that his third term of office closes with this month. We trust that nothing will occur to break the continuity of the excellent work which he has now for so long a period supervised with judgment and ability.

Withington Urban District.—The death-rate for this district is low. In 1884 it was 13·5 per 1000, and last year it was 13·9 on a population now estimated at 18,000; the zymotic death-rate is also a satisfactory one. In his report Dr. Railton gives an account of the several diseases which have been prevalent, and of the action taken with regard to them, including isolation in the Monsall Infectious Hospital; and he then describes the sanitary circumstances of the district at the end of the year. The information given under the various headings in which the several conditions are

dealt with goes to show that good supervision is maintained, and that improvements are steadily in progress. A special report is also appended on the pollution of the streams which flow through the district. Withington itself has dealt with its sewage with a view to prevent pollution of the Chorlton brook, which joins the Mersey, but the latter stream remains largely fouled by other means. So also the Chorlton brook itself is still polluted, and in anticipation of action, which will doubtless be taken by the Manchester Ship Canal Company, investigation has been made of the various sources of pollution which reach the several streams flowing through the Withington district. The pollutions in question all appear to arise in neighbouring sanitary districts, and the Withington authority are advised to commence at once by taking proceedings against offenders under the Rivers Pollution Act.

Bristol Urban and Port Districts.—Mr. Davies, the veteran medical officer of health for Bristol, takes leave of his authority in this his last annual report, and he will carry with him in his retirement the gratitude of all who are capable of appreciating the eminent services he has rendered. The city of Bristol had a death-rate of 19·6 per 1000 during 1885. But though this exhibits a slight increase on the rate for 1884, Mr. Davies believes that his district will stand, as heretofore, at the head of the large towns and cities in point of healthiness. Amongst the local conditions which, according to Mr. Davies, account for this enviable pre-eminence are the following:—1. An excellent system of sewers, designed and carried out in 1851. Mr. Davies regards it as fortunate that Bristol has brick sewers of large capacity—some being 8 ft. in diameter—as opposed to small pipe sewers. This may be fortunate under the circumstances of Bristol; but as a general rule it is not advisable to make sewers larger than is necessary for the purposes of rapidly carrying away the contents they are likely to receive. 2. Bristol has an admirable water-supply from the Mendip hills, and it is a matter of congratulation to hear from Mr. Davies that during his twenty-one years' service as medical officer of health he has never known a case of disease attributed to this water. 3. The great axiom that cleanliness is next to godliness has influenced the sanitary department of Bristol in all its dealings; the result being that dirt in all its forms and shapes has been regarded as an enemy to public health, which must at all hazards be put down. The child-mortality of Bristol is on the increase, and Mr. Davies reminds the Corporation of his prophetic utterance, to the effect that with the extension of factories, and the consequent greater occupation of females as breadwinners, such an increase would take place. The deaths under one year of every 1000 registered births were 133·9 in 1883; they were 145·3 in 1884; and last year they had risen to 155. Mr. Davies again urges the view that any social arrangement, or even philanthropic charity, that removes woman from one of the chief duties of her sex has for a result an increase of infant mortality. Of 61 cases of small-pox that came under notice 44 were isolated in hospital, 18 being removed to the Corporation small-pox hospital. On the other hand, although there were 21 deaths from scarlet fever, 25 from diphtheria, and 16 from "fever," it was only found necessary to isolate 8 cases in the fever hospital belonging to the authority. Some of the fatal attacks set down as due to enteric fever were not properly so designated, according to Mr. Davies, who states that there has been much loose teaching in this respect.

Bristol Port District.—The report on this district is accompanied by a very useful map, showing the boundaries of the port and the relation which it bears to neighbouring places. The inspection of ships was carried out most methodically during 1885 with the aid of Dr. Heaven, assistant port medical officer, and, where needed, the cleansing and disinfection of vessels were thoroughly enforced. The new sanitary hospital at Avonmouth was completed during the year, and it was found invaluable in dealing with small-pox imported from Montreal. It was also kept in readiness for the purposes of any cholera that might have been imported, but fortunately the port of Bristol escaped.

ON the 15th inst., the House of Lords gave judgment in the case of Abrath *v.* the North-Eastern Railway Company, which was an action for malicious prosecution. The courts below decided against the plaintiff, and this decision was upheld by the House of Lords.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6195 births and 4873 deaths were registered during the week ending March 13th. The annual death-rate in these towns, which had increased in the six preceding weeks, from 22·1 to 26·6, further rose last week to 28·0, and exceeded the rate recorded in any week since February, 1882. During the first ten weeks of the current quarter the death-rate in these towns averaged 23·9 per 1000, which was 0·5 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 19·3 in Brighton, 19·6 in Sheffield, and 19·9 in Derby. The rates in the other towns ranged upwards to 33·8 in Liverpool, 34·3 in Salford, 35·4 in Plymouth, and 35·7 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 384 and 404 in the preceding two weeks, further rose last week to 430; they included 191 from whooping-cough, 122 from measles, 36 from diarrhœa, 31 from "fever" (principally enteric), 30 from scarlet fever, 18 from diphtheria, and 2 from small-pox. No death from any of these zymotic diseases was recorded last week in Huddersfield; whereas they caused the highest death-rates in Portsmouth, Nottingham, Bolton, and Blackburn. Whooping-cough caused the greatest mortality in Sunderland, Portsmouth, and Bolton; measles in Preston, Oldham, Nottingham, Plymouth, and Blackburn; scarlet fever in Salford; and "fever" in Wolverhampton. The 18 deaths from diphtheria in the twenty-eight towns included 14 in London. Small-pox caused 2 deaths in Liverpool, and not one either in London or in any of the twenty-six other large provincial towns. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 15 and 7 on the preceding two Saturdays, were again 7 at the end of last week; one case was admitted to these hospitals during the week, against 7 and 0 in the preceding two weeks. The Highgate Small-pox Hospital contained 3 patients on Saturday last, one case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had increased in the preceding seven weeks from 477 to 745, further rose last week to 855, and exceeded the corrected weekly average by 385. The causes of 143, or 3·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Plymouth, Birkenhead, and Huddersfield. The largest proportions of uncertified deaths were registered in Halifax, Oldham, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 22·3, 23·5, and 24·9 per 1000 in the preceding three weeks, further rose to 27·5 in the week ending March 13th, but was 0·5 below the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 14·8 in Perth and 21·4 in Edinburgh, to 30·4 in Paisley and 33·6 in Glasgow. The 678 deaths in the eight towns showed a further increase of 64 upon the numbers in recent weeks, and included 20 which were referred to whooping-cough, 11 to diarrhœa, 6 to measles, 5 to scarlet fever, 5 to diphtheria, 4 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 51 deaths resulted from these zymotic diseases, against 51 and 43 in the preceding two weeks. These 51 deaths were equal to an annual rate of 2·1 per 1000, which was 0·5 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 19 in each of the previous two weeks, were 20 last week, all of which occurred in Glasgow. The 11 deaths attributed to diarrhœa showed an increase of 4 upon the low number in the previous week, but were 6 below those returned in the corresponding week of last year. All the 6 fatal cases of measles were returned in Edinburgh; and 4 of the 5 deaths both from scarlet fever and from diphtheria occurred in Glasgow. The deaths referred to "fever," which have been 6 and 7 in the preceding two weeks, declined last week to 4, including 3 in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had increased in the preceding five

weeks from 135 to 170, further rose last week to 191, and exceeded the number in the corresponding week of last year by 69. The causes of 91, or 13 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had declined in the preceding four weeks from 38·6 to 30·1 per 1000, rose again to 38·3 in the week ending March 13th. During the first ten weeks of the current quarter the death-rate in the city averaged, no less than 32·7 per 1000; the mean rate during the same period did not exceed 24·4 in London and 19·2 in Edinburgh. The 259 deaths in Dublin last week showed an increase of 55 upon the number returned in the previous week and included 19 which were referred to the principal zymotic diseases, against numbers declining from 26 to 15 in the previous four weeks; 11 resulted from whooping-cough, 6 from "fever" (typhus, enteric, or simple), 1 from scarlet fever, 1 from diarrhœa, and not one either from small-pox, measles, or diphtheria. These 19 deaths were equal to an annual rate of 2·8 per 1000; the rates from the same diseases being 2·6 in London and 1·6 in Edinburgh. The fatal cases of whooping-cough, which had been 18 and 10 in the previous two weeks, were 11 last week. The 6 deaths from "fever" showed a further increase of 2 upon the low numbers in recent weeks. Seven inquest cases and 6 deaths from violence were registered, and 68, or considerably more than a quarter of the deaths were recorded in public institutions. The deaths of infants showed an increase upon recent weekly numbers, while those of elderly persons had somewhat declined. The causes of 38, or nearly 15 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

AMBIGUOUS ILLNESS AND DEATH.

To the Editor of THE LANCET.

SIR,—The ambiguous illness and death of a member of the profession so well known and so much esteemed as Mr. Cooper Forster, who appeared but a short time before to be in the fulness of health and exceptional constitutional vigour, cannot fail to have attracted the attention of the profession through the clear and candid accounts published in your last number by Dr. Wilks and Mr. Jonathan Hutchinson, together with the note of the post-mortem made by Dr. Anderson and Mr. Hutchinson, jun. This case will be sure to call to the memory of most men of clinical experience, both in hospital and private practice, instances of illness in which the most thorough investigation fails to justify a name being given to an unusual and ambiguous set of grave symptoms. Disease is not an entity, but the expression of variable and complex deviations from health usually presented with regularity and order sufficient to admit of being classed or grouped and named as a disease; but sometimes these complex and variable deviations from natural functions and structure are presented in such irregular and rare forms as to give no one individual, nor indeed the whole profession, such knowledge and experience of them as to justify their classification so as to enable them to be named. Of this kind was the illness of Mr. Cooper Forster, as well as that of "unusual rash" on which you annotated in your issue of March 13th (see THE LANCET for 1876, page 113, for cases of Lichen Planus, by Tilbury Fox), which does not appear so fatal as Mr. Hutchinson represents. These two cases of illness attended by indefinable rash and other unusual symptoms, and neither admitting of a diagnosis in accordance with the accepted classification of disease, even when seen in one case by Dr. Julius Pollock, Dr. Samuel Gee, and Mr. Pollock, and in the other by Dr. Habershon, Dr. Wilks, Sir James Paget, and Mr. Jonathan Hutchinson, all men of the largest professional knowledge and experience, point to fields for research as yet unexplored. When cases such as these fall to the lot of the isolated practitioner he must indeed feel a weight of responsibility; and if this be accompanied by some mistrust of his powers, he may derive consolation from the fact that there are illnesses going on to a fatal issue which the greatest combination of learning and skill in consultation is not able either to name or diagnose. Viewed in retrospect through the published accounts, the points to note in Mr. Cooper Forster's illness are:—1. That there was a rash resembling lichen planus before he left London for the Riviera on Jan. 21st, but there was no other deviation from his accustomed good health. 2. It was not till he had left London and sojourned in the Riviera for a week or so that he first felt unwell; the first appearance of the rash and first indisposition were thus not coincident, and apparently not intimately connected. 3. Loss of appetite and strength after the first week in the Riviera was the first constitutional symptom, but there was no quickening of pulse; yet the condition on his reaching London, after touring about in the Riviera for from three weeks to a month, was that of a distinct fever, suspected to be typhoid, with an afternoon temperature of from 102° to 103°, but still with no quickening of pulse beyond 80 beats, except just preceding death. 4. The fever was proved at the post-mortem not to be typhoid; yet the blood and bile-stained organs left no doubt that there had been a blood disease of the nature of fever. 5. The lung congestion and pleuritic effusion were secondary and insufficient to have caused death, and Sir James Paget was clear upon the point that the case was not pyæmic. 6. The rise and fall of morning and afternoon temperature was periodic and regular in height at these respective times, and not accompanied by a corresponding rise in the pulse-rate. 7. The illness commenced while touring in a locality known to be visited from time to time by malaria, and the spleen was enlarged as if from malarial infection. Malarial fever resembling typhoid has been the subject of much comment in your columns of late.

The question naturally arises, Was not Mr. Cooper Forster's illness an instance of malarial fever resembling typhoid brought to a climax by chill, excessive fatigue, and abstinence from nourishment? The initial rigor, so conspicuous by its absence in his illness, is often absent in malarial fevers, while active development is well known to be coincident with chill, fatigue, or abstinence from nourishment in persons previously exposed to the poison. Two years ago I had a patient come straight from Monte Carlo with symptoms very like those in Mr. Cooper Forster. Dr. Bennett in his work on the Riviera asserts that for two summers many cases of malaria occurred even at Mentone, and that malarial fevers may be generated there by mere chills.

I am, Sir, yours obediently,

March 15th, 1886. A GENERAL PRACTITIONER.

To the Editor of THE LANCET.

SIR,—The account published in your last issue of the fatal illness of Mr. Cooper Forster forcibly reminds me of some cases met with last year at Suakim, and recently brought before the Medico-Chirurgical Society. The resemblance to one of these cases in particular is, excepting as to diarrhœa, remarkably close. During life less cerebral oppression and increased tendency to vomiting alone distinguished these cases from typhoid, for at Suakim the prevalent diarrhœa was present in all cases, and prevented a clear diagnosis. Diarrhœa is, however, not a constant symptom in such cases (see THE LANCET, Sept. 19th, 1885, p. 518). A similar form of fever is found, I believe, at Malta, Naples, Sicily, and Rome; but this, as far as I know, is the first recorded instance of its being met with so far north as the Riviera.

I am, Sir, yours obediently,

J. EDWARD SQUIRE, M.D.

Orchard-street, W., March 16th, 1886.

To the Editor of THE LANCET.

SIR,—There is evidently much doubt as to the nature of the disease of which Mr. Cooper Forster died, and the account of the necropsy, as reported in last week's LANCET, does not clear it away. In looking over the notes of the necropsy, I find no mention is made as to the condition of the supra-renal bodies. Is it possible that the patient died of Addison's disease, and that the eruption stated to be a prominent symptom was partial bronzing of the skin? The statement that Mr. Forster was in full health when he started on his continental tour is of course against this view of the case; but the nausea, the loathing of food, and the great and sudden prostration are in favour of it. Some

five or six years ago we admitted a man into the West Norfolk and Lynn Hospital whose history was simply that of a few weeks' gradually increasing debility and more or less bronzing of the skin. The patient was brought into the hospital in a state of utter prostration, death taking place in a week or ten days, and whilst under observation there was no sickness and no pain. Addison's disease was diagnosed on examination after death, and the supra-renal bodies were typically diseased.

I remain, Sir, yours obediently,

WILLIAM DALE, M.D. Lond.

King's Lynn, Norfolk, March 16th, 1886.

CYCLICAL ALBUMINURIA.

To the Editor of THE LANCET.

SIR,—Dr. Pavy appears to wish to give this name to the condition called by Dr. Moxon the albuminuria of adolescents, on the ground that in this form of albuminuria the maximum albumen of the twenty-four hours is found during the after-breakfast period.

In the *British Medical Journal* for June 5th, 1880, p. 841, there is a paper of mine which was read at the meeting the previous year at Bath, in which this periodical excretion of albuminuria is fully described and compared with the diurnal variations in the urea, pulse, and respiration to which Dr. Edward Smith first drew attention. But my cases were cases of Bright's disease, and if Dr. Pavy means to assert that this diurnal variation is absent in Bright's disease, and present in these cases only, he is, according to my observation, wrong. My paper has been quite accessible; but as no one has remembered it, I may be pardoned for quoting one of my tables.

Diet: Breakfast, 5 A.M., two slices of bread-and-butter, with tea; lunch, 10 A.M., two slices of bread-and-butter, one pint of milk; dinner, 1 P.M., four ounces of cooked meat, eight ounces of potatoes, bread and water; tea, 6 P.M., same as breakfast; supper, 7 P.M., half a pint of milk. Exercise: walking twice daily for half an hour, at 12.30 and 2.30 P.M.

Date.	Period.	Total urine.	Albumen in 40 cubic centimetres.	Total albumen.
		Cub. cent.	Gramme.	Gramme.
March 10th	7 P.M. to 5 A.M.	1620	·008	·1296
	5 A.M. to 1 P.M.	150	·016	·06
	1 P.M. to 5 P.M.	180	·01	·045
	5 P.M. to 7 P.M.	120	·008	·024
March 12th	7 P.M. to 5 A.M.	870	·0069	·1479
	5 A.M. to 1 P.M.	180	·017	·0756
	1 P.M. to 5 P.M.	180	·0141	·0630
	5 P.M. to 7 P.M.	150	·009	·0330
March 13th	7 P.M. to 5 A.M.	1410	·0155	·5358
	5 A.M. to 1 P.M.	180	·020	·090
	1 P.M. to 5 P.M.	180	·0166	·0738
	5 P.M. to 7 P.M.	120	·015	·0444

This was a case of Bright's disease, and he was put on this diet for the purposes of this experiment. It is interesting to note that the nitrogenous diet, while not having the immediate effect of increasing the albumen passed during the corresponding periods, yet showed a very decided power of increasing the total albumen, which rose by the third day to three times what it was on the first.

I am, Sir, yours obediently,

Birmingham, March 9th, 1886. ROBERT SAUNDBY, M.D.

A CASE OF APOPLEXY, WITH COMPLETE HEMIPLEGIA, AT THE AGE OF TWENTY-FIVE.

To the Editor of THE LANCET.

SIR,—The following case may be interesting to your readers.

Miss G. W——, aged twenty-five, a schoolmistress, consulted me early last October for shortness of breath and difficulty of getting up-hill. She was anæmic, of slight build, and with auburn hair; the catamenia were regular, though of small quantity. She felt well, and her appetite was good. On examination the heart was working away with a great thrill all over the left breast, and continued up the subclavian and carotids, but more so on the right side—in fact the anæmic bruit. There was no valvular disease. On iron and digitalis she improved, which was afterwards changed to compound iron mixture. I saw her now and then, she continuing well and able to go on with her duties, when on Sunday, Dec. 13th, at about 7.30 P.M., I was called out of church to go to her (she living about five miles away), the messenger saying she was speechless and had great pain in her right arm. On arrival I found her unconscious, unable to speak, mouth slightly drawn to the right side, both pupils dilated and unanswerable to light, face swollen, unable to protrude the tongue, right arm and leg paralysed but warm, no involuntary evacuation of bladder or bowel, with her hand pressed against the left side of the head. Her friends told me that she had been "out of sorts" for the last two days, and that while sitting before the fire during the evening she got up to put on some coals and fell back into her chair, in which position I found her. I ordered mustard to be applied to the neck &c., also calomel and a mixture.—Dec. 14th: Unconscious, the same as last night; passed no urine; bowels not moved. I passed a catheter, ordered a turpentine injection, and a blister to the left side of the head.—15th: Bowels open; passed a little urine in bed.—16th: Bowels open with injection; passed urine, and she knew when she wished to do so. More conscious; knows me; pupils answer to light, though not quite enough; swelling of face reduced; tongue can be protruded, but goes to right side; no pain.—19th: Has been going on favourably; quite conscious for the last few days; able to eat with a relish; bowels and bladder act regularly and naturally; paralysed parts keep warm, but are useless. I ordered her absorbents and nerve tonics, also galvanism.—22nd: Got her up in the arm-chair; cannot speak, though she can make her friends understand what she wants.—28th: Has said "No," "Yes"; objects a good deal to the battery; is progressing in strength.—31st: Is able, while standing, to lift her paralysed leg about two inches and a half from the ground; the arm remaining the same; can read a verse in the Bible.—Feb. 6th: The patient has been steadily mending; her speech is slow, but stronger; able now to walk downstairs step by step; can lift her arm towards her head; all functions regular; is looking very well, but inclined to laugh at a trifle. The patient now passed out of my hands into the Cottage Hospital, where I trust she will make as good a progress as at her humble home.

Query, is it sanguineous or serous effusion or hysteria? I am inclined to serous effusion. I heard since that she was troubled about her school not passing, whereby she lost her certificate. I am, Sir, yours truly,

WILLIAM FRASER, M.B. Univ. Dub.

Ashburton, Devon, Feb. 9th, 1886.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE NEWCASTLE CHILDREN'S HOSPITAL.

THE munificent offer of Mr. Fleming, of this city, to build and furnish a new children's hospital for Newcastle and its vicinity, at a probable cost of £15,000, has caused the charity to become a subject of conversation of late in medical and general circles. The gift of Mr. Fleming has also created some difficulty in the minds of the friends of the institution. By the terms of the gift the hospital is to be removed to the outskirts of the city, at least two miles from the parts of the town most in need of out-patient relief; and as this latter has always contributed the most important part of the children's hospital work, it must needs follow that unless some adequate provision is made for carrying on the work of the out-patient department in the centre of the town, the removal of the hospital will do a great deal of harm, and even if this provision is made it is feared the division of labour in the medical departments will not be found to work well. Many old friends of the institution think that a good central hospital with a limited number of beds, and a small convalescent hospital (a want generally admitted) in the suburbs, would offer most benefit for the sick poor. Then, again, the subject of the endowment or support of a large hospital as proposed will require most anxious consideration when most of our medical charities show a diminishing income. Mr. Fleming's offer is a handsome one no doubt, but the considerations just alluded to ought to be well weighed by

the governors. I should have mentioned, when speaking of the medical founders of the hospital in my last letter, that Mrs. Sedman of Leeds, Sir William and Lady Armstrong, Miss Jane Mather, and the late Mr. Joseph Mather of this city greatly aided Dr. William Murray and Mr. J. B. Fife in establishing the hospital, and that Dr. Murray is consulting physician and Mr. Fife consulting surgeon to the institution.

NEWCASTLE DISPENSARY.

The annual meeting of this dispensary, a very old charity, was lately held in this city, and the report (the 108th) was on the whole very satisfactory. The medical officer resident in the institution stated that the number of patients admitted to the benefits of the charity showed an increase of 967 as compared with the previous twelve months. There was also an increase of 1287 in the number of casual patients. Dr. Beatley states that during the early part of last year a severe epidemic of measles caused a great strain to be thrown on the medical staff and the resources of the institution. The number of patients admitted by letter during the year had been 7027, in addition to 550 under treatment at the beginning of the year, making a total of 7577. Of these 6318 had been cured or relieved, 94 sent to the Infirmary Fever House &c., 654 died, and 511 remain under treatment. The casual patients admitted with letters during the year numbered 13,426, making a total of 21,003 cases treated. It is pointed out in his report that the 7027 letter patients constituted the largest number of this class treated in any one year, and that it was among the home patients that the largest increase was apparent. The percentage of deaths was higher than in 1884; this is accounted for by the severe epidemic of measles and the distress amongst the poor of the city. It is pointed out that there has been no death certified amongst the casuals; children are occasionally brought to the dispensary at the last moment, but the medical officer has adopted the practice of referring such cases to the coroner. Dr. Beatley bears testimony to the good work done in conjunction with the medical officers to the sick poor by the Cathedral Nurse and Loan Society, by skilful nursing, and the supply of nourishment and appliances in many difficult cases. In reference to a clause in the report, showing the mortality from measles treated at the dispensary to have been 108 fatal cases in a total of 1062 affected, or 10 per cent., a governor said that the question arose whether the time had not arrived when such cases should at once be reported to the medical officer of health, with a view to steps being taken to stop the spread of the disease.

BEQUESTS TO CARLISLE CHARITIES.

The late Miss Frances Barnes of Carlisle has left several legacies to the charities of that city, including the following:—Border Counties Home for Incurables, £500; Cumberland Infirmary, £500; Asylum for Idiots, £500; Silloth Convalescent Institution, £500; Carlisle Dispensary, £300.

Newcastle-on-Tyne, March 16th.

EDINBURGH.

(From our own Correspondent.)

PROFESSOR SIR WILLIAM TURNER.

THE honour of knighthood has been proffered to and accepted by Professor Turner, who has now for nearly twenty years occupied the Chair of Anatomy in the University of Edinburgh. The honour which has thus been conferred was one thoroughly merited by the distinguished career achieved by our professor of anatomy, who, by the thoroughness of his teaching, as well as by his great organising and administrative powers, has done so much to extend the fame and to enhance the welfare of the University of Edinburgh. The intimation of the honour which has been done him has been greeted in Edinburgh with universal approbation, a sentiment which will be united in by numbers of his old students now scattered over the country, who have become acquainted with his sterling qualities whilst studying in his department during their medical curriculum. On Wednesday week at 1 o'clock, the usual hour for the lecture on anatomy, Sir William Turner was welcomed by an enthusiastic crowd of students who had assembled to congratulate him upon his newly conferred honour. A congratulory address from the members of the anatomy class was presented to him, in which the students expressed their esteem for him as a teacher and their sense of the distinguished career in the pursuit of anatomical science which has so well merited the honour now conferred. In reply to the address, Sir William referred to the numerous expressions of goodwill of which he has been the recipient during the thirty-two years of his connexion with the University of Edinburgh, but stated that he had never dreamed of being a party to such an overpowering demonstration as they had given him that day. As a member of the teaching staff of the University he had accepted the distinction of a knighthood as a recognition of the work being done by the University, and as no mere personal compliment. He concluded by announcing a holiday for that day. The proceedings, which were throughout very enthusiastic, terminated amidst prolonged and reiterated cheering.

THE LATE DR. JOHN BISHOP.

The death of Dr. Bishop, which took place a few days ago at Cannes, has been heard of with deep regret by a wide circle of friends in Edinburgh. Till about two years ago Dr. Bishop was resident in Edinburgh, where he engaged in practice as a surgeon, and where he held the post of assistant-surgeon to the Royal Infirmary. About that time his health became impaired in consequence of an erysipelatous attack contracted whilst carrying on his hospital duties. This illness he never fully recovered from, for it was followed closely by the onset of an attack of profound anæmia, which, after running a prolonged course, has terminated fatally. Dr. Bishop's career as a student was a distinguished one; he was known to be intimately acquainted with philosophical and logical literature, and he brought all the trained acumen of a well-balanced mind to bear upon his medical studies. He was an authority upon antiseptic surgery, and the subjects connected with it, and he obtained a gold medal for his M.D. thesis upon this subject. By his personal characteristics he attracted a large circle of acquaintance, amongst whom he was valued as a true-hearted and generous friend. About five years ago he married Miss Bird, the authoress of several widely known books of travel, by whom he is survived.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.

As previously announced in these columns, there were three candidates in the field for the Vice-Presidency for the ensuing year, the election for which takes place early in June. The three candidates, Messrs. Frazer, Fitzgibbon, and Corley, appeared resolved to contest the matter, but I am glad to state that Mr. Fitzgibbon has, on reconsidering the matter, determined to resign in favour of Mr. Corley, believing that gentleman to have a prior claim on the electors. Mr. Fitzgibbon, however, I am informed, will be a candidate for the Vice-Presidency in 1887. Sir James Paget, Bart, one of the new Honorary Fellows, has intimated his intention to be present at the banquet to be given at the College, on the 28th April, by Sir Charles Cameron, and during his stay in Dublin will be the guest of the President.

ROYAL UNIVERSITY OF IRELAND.

The fourth annual report is of a favourable character, and the progress shown during the past three years gives good ground for the belief that the success of the University is assured. At the various academic examinations last year 2534 students presented themselves, being an increase of 433 as compared with the previous year. Lord Emly, whose work the report is, states, in reference to the women students, that they have on the whole been so successful that it is plain greater facilities and an improved character of education would bring about most satisfactory results.

DEATH OF MR. THOMAS DARBY, F.R.C.S.I.

This well-known gentleman died at his residence in Bray on the 10th inst. from an attack of bronchitis, at the advanced age of seventy-eight years, and his somewhat sudden decease will be regretted by a large number of friends. Some years since he was attached as visiting surgeon to Rathdown Workhouse, which post he resigned in order to devote himself entirely to private practice, of which he possessed the lion's share in the fashionable seaside resort in which he resided. At one time he was a candidate for a seat on the

council of the College of Surgeons, and lost it by the casting vote of the chairman, which result prevented him ever coming forward again for this office. He was an ex-president of the Irish Medical Association and of the Dublin Obstetrical Society, and filled other positions with credit and efficiency.

ST. JOHN AMBULANCE ASSOCIATION.

The annual meeting of the Dublin Centre of this Association was held on Saturday last in the Senate Hall of the Royal University of Ireland, when the Countess of Aberdeen distributed the awards of the Society. The St. John Medal was bestowed on Dr. E. Charles Thompson for having risked his life in order to save a child suffering from diphtheria. Dr. Thompson is the first on whom this distinction has been conferred in Ireland, and he is also the recipient of the Albert Medal for the same act of heroism.

CITY OF DUBLIN HOSPITAL.

By the bazaar recently held, this institution, which is one of the best-managed hospitals in Dublin, has obtained a sum of £2000 towards the funds of the charity.

Robert Anderson, A.M., M.D., Professor of Natural History, Queen's College, Galway, has been placed on the commission of the peace for the county of Down.

Dublin, March 16th.

PARIS.

(From our own Correspondent.)

THE PARIS FACULTY OF MEDICINE.

THE summer session of the Paris Faculty of Medicine began to-day, the 16th inst., and will be continued in the following order:—Medical Natural History, Professor Baillon; Physiology, Professor Béclard; Surgical Pathology, Professor Guyom; Medical Jurisprudence, Professor Brouardel; Pharmacology, Professor Regnauld; Pathology and General Therapeutics, Professor Bouchard; Medical Pathology, Professor Damaschino; Experimental and Comparative Pathology, Professor Vulpian; Obstetrics, Professor Tarnier; Hygiene, Professor Proust; Materia Medica and Therapeutics, Professor Hayem. Clinics: Medicine—Professor G. Sée, at the Hôtel Dieu; Professor Hardy, La Charité; Professor Potain, Necker Hospital; Professor Jaccoud, La Pitié. Surgery—Professor Richet, Hôtel Dieu; Professor Verneuil, La Pitié; Professor Trélat, La Charité; Professor Le Fort, Necker Hospital. Mental Pathology and Diseases of the Encephalon—Professor Ball, at the St. Anne Asylum. Diseases of Children—Professor Grancher. Syphilitic and Cutaneous Affections—Professor Fournier, at the St. Louis Hospital. Diseases of the Nervous System—Professor Charcot, at the Salpétrière. Ophthalmology—Professor Panas, at the Hôtel Dieu. Clinical Obstetrics—Professor Pajot.

PROPHYLACTIC MEASURES AGAINST COLD.

At a recent meeting of the Société de Biologie, Professor Brown-Séquard read a paper on the Prophylactic Means to be adopted against Accidents resulting from Cold, which he founded on the following theory:—"The neck is one of the regions of the body the most sensitive to cold; there is no doubt that a great number of accidents, such as coryza, laryngitis, bronchitis, cystitis, enteritis, &c., which are reflex phenomena, result from the impression of cold on the nerves of the skin of the neck." To avoid these accidents, M. Brown-Séquard recommends the blowing on the neck with the bellows of warm air, which should be gradually cooled, by which means the neck is rendered less sensitive to the action of cold. The Professor found that ten sittings were sufficient to produce effect.

A VISIT TO M. PASTEUR'S LABORATORY.

I paid a visit this morning to M. Pasteur's laboratory in the Rue d'Ulm, where he performs his anti-rabic inoculations. The sight to be there witnessed is most interesting and curious, for one meets persons of both sexes, of all ages and conditions of life, the poorer classes being in greater number, even people from different parts of the world—Italians, English, Americans, Russians, Poles, &c.,—who were there assembled to submit themselves to M. Pasteur's treatment. The inoculations are performed by Dr. Grancher with a hypodermic syringe in presence of M. Pasteur, and he does from sixty to eighty every morning. The instrument, which is two-thirds full of the inoculating liquid for adults and one-third for youths and children, is thrust into one or other flank, and this operation is repeated every day for ten consecutive mornings. The composition, or rather the constitution, of the liquid employed is known only to M. Pasteur, who manufactures it in his own laboratory. Dr. Grancher told me that as yet no accidents had occurred in the way of abscesses &c., and that the patients go through the process without any constitutional disturbance. It struck me, however, that many of the applicants had been driven there, more from fright than necessity, as in many cases they did not wait to ascertain whether the dogs that bit them were really rabid. In some cases they were not even bitten. For instance, I saw a young English lady who submitted to the operation simply because she had been licked in the mouth by her dog, which had no signs of madness. I met there also Dr. Hime of Bradford, who came over with his party of seven persons, consisting of four little boys, a little girl, a youth, and a man, who Dr. Hime told me were bitten on Jan. 24th by a dog which was ascertained to have been indubitably rabid, as another person who was bitten at the same time by the same dog died soon after from hydrophobia. M. Pasteur had just received a telegram from Berlin to say that nineteen persons bitten by a rabid wolf were forwarded to Paris to undergo his treatment. Subscriptions for a suitable building are pouring in from all quarters, and the Paris Municipal Conseil has under its consideration a proposition for the immediate construction of the Pasteur Institute.

APPOINTMENTS AT THE VETERINARY SCHOOLS.

M. Chauveau, Director of the Veterinary School of Lyons has been appointed Inspector-General of the Veterinary Schools of France, in lieu of M. Henri Bouley, deceased; Professor Arloing is appointed Director of the Veterinary School of Lyons in succession to M. Chauveau.

Paris, March 16th.

MEDICAL NOTES IN PARLIAMENT.

Inoculation for Hydrophobia.

IN the House of Commons, on the 11th inst., in reply to Sir H. Roscoe, Mr. Chamberlain stated that his attention had been called to the reported discovery by M. Pasteur of a cure for hydrophobia. The recognised eminence of M. Pasteur as a scientific investigator, and the great interest and importance which attach to the subject of his recent inquiries, seemed to justify a careful and impartial examination of the results obtained. At present the information on the matter in the possession of the Local Government Board was too vague and incomplete to afford materials for a full appreciation of M. Pasteur's process. He would consider how such an investigation as might enable a just estimate to be formed as to the reliability of M. Pasteur's method and its applicability to this country could be most satisfactorily conducted, and would confer with the Chancellor of the Exchequer with reference to the question of the expense.

Fever at Port Royal.

In reply to Sir J. Goldsmid, Mr. Hibbert stated that he regretted to have to say that since October, 1885, nineteen cases of yellow fever had been admitted into Jamaica Hospital from the *Urgent*, of which number four had terminated fatally. Besides these, an officer who was on board waiting to join the *Wye* was attacked and died. There had been one other case—from the *Tyne*. There was no "sanatorium or hill station" attached to Jamaica Hospital; nor was it thought by the medical advisers of the Government that any such establishment was necessary for such cases of infectious disease, as Port Royal was so swept by the sea breezes that it was considered more healthy than a hill station.

The Hampstead and Homerton Hospitals.

On the 12th inst., in answer to Mr. Gibb, Mr. Chamberlain said that the Hampstead Hospital had not been used for any small-pox patients since July of last year, and if in the event of any epidemic it should be necessary again to use it for small-pox patients it would only be for a very limited number, and in the cases only of patients who, from the acute nature of the disease, could not be removed to any hospital at a distance. The report of Mr. Shirley Murphy had not yet been officially considered by the managers, and consequently no steps had been taken to test the conclusions

at which he had arrived. With regard to the Homerton Hospital, the managers had made such arrangements as would, it was believed, prevent the occurrence in the future of such abuses as formed the subject of the recent inquiry, and it did not appear to the Local Goverment Board that there would be any sufficient advantage in a further inquiry by a Royal Commission or a Select Committee.

The Indian Medical Service.

In reply to Sir G. Hunter, Sir W. Kay-Shuttleworth stated that the option of attending the Aldershot course of instruction, which in August, 1882, had been given to Indian medical officers passing through Netley, was inadvertently withdrawn in April, 1884, on the introduction at Netley of a course of bearer company drill. This, however, would now be corrected; and as the Aldershot course must be optional for Indian officers, a reference would be made to the Government of India as to the instruction in that country of those officers who have not passed the Aldershot course.

Contagious Diseases Acts.

On the 16th inst. Mr. Stansfeld moved that the Contagious Diseases Acts, 1866-69, ought to be repealed. The whole subject had been worn threadbare long ago, and no new arguments were adduced either for or against this class of legislation. Mr. Puleston, as representing a garrison town in which the compulsory treatment had been enforced, spoke of the value of the Acts as a repressive and reclamatory agency, and he read a letter from the Town Clerk of Devonport urging that the supporters of the Acts had wavered not a jot in their opinion as to the usefulness in the interests of health and morality of the measure Mr. Stansfeld sought to annul. Sir John Kennaway tried to effect a compromise; but it was admitted on both sides of the House that the feeling of the country was adverse to the Acts, and when the matter came to a division the amendment was negatived by a considerable majority—245 to 131. The motion was then agreed to without a division.

On the 17th inst. Mr. Stansfeld moved for leave to bring in a Bill to repeal the Acts, but Mr. Bentinck objected, and as it was past the hour at which opposed business could be taken the motion dropped.

The Medical Act of 1858.

On the 16th inst., in answer to Dr. Foster, Sir L. Playfair stated that a Bill was being drafted, and would, he hoped, be shortly introduced, to amend the Medical Act of 1858. It will contain provisions to give direct representation to the medical profession on the General Medical Council.

Rags from Spain.

In answer to Mr. Hunter, Mr. Trevelyan said that he had recently approved of an order issued by the Board of Supervision prohibiting the importation of rags from Spain for some months, and had received various recommendations as to the necessity of further legislation, which would have his careful consideration.

THE SERVICES

INDIA OFFICE.—The Queen has approved of the restoration of the undermentioned officer from the half-pay list to the effective list:—Surgeon George Augustus Cones, of the Bengal Army.

The Queen has approved of the following promotion made by the Governments in India:—Surgeon-Major Benjamin Thomas Saffrein, of the Madras Medical Establishment, to be Brigade Surgeon.

ADMIRALTY.—The following appointments have been made:—Surgeon William E. Breton, M.D., to the *Revenge;* Surgeon Hugh W. Macnamara, to the *Asia;* Surgeon Robert M'Ivor, to Plymouth Hospital; Surgeon John A. M'Adam, to the *Indus;* Surgeon A. H. Miller, to Royal Marine Depôt, Walmer; Surgeon James H. Beattie, to the *Vernon;* Surgeon Richard A. Fitch, to the *Cambridge;* and Surgeon W. Spry, to the *Boscawen.*

ARTILLERY VOLUNTEERS.—1st Cheshire and Carnarvonshire: Arthur Montfort Archer, Gent., M.B., to be Acting-Surgeon.

A SUM of 120,000 marks (£6000) has been left to the University of Rostock, for the erection of an ophthalmic hospital.

Obituary.

JOHN STORRAR, M.D. LOND.

DR. STORRAR was so well known to everyone connected with the University of London as its oldest surviving medical graduate, and for twenty-one years its chairman of Convocation, that his death on the 10th inst. at Blackheath will be felt by most of the graduates as a personal loss. He was born in 1811, and was educated at University College. He took his M.D. degree in 1839, with the late Dr. John Taylor, and they were the first medical graduates of the University. Without a qualification from either of the Royal Colleges he practised for several years in Brook-street, and was largely instrumental in securing the passing of the Medical Graduates Act of 1858, by which the members of the University of London were given the same privileges to practise medicine as were enjoyed by the graduates of Oxford and Cambridge, without becoming Members of the Royal College of Physicians. Dr. Storrar's position in this matter was really made a test case. He was for many years secretary to Dr. Somerville, a former inspector of anatomy. The General Medical Council was first constituted in 1858, and on its formation Dr. Storrar was appointed on that body as the representative of the University of London, and had continued as such up to the present time. He was an ardent enthusiast in improving medical education, on the general and scientific lines adopted by his University, and could always be relied on to oppose firmly but courteously any proposition tending to lower medical standards, or to depreciate university influences in favour of the corporations. If he erred in these matters, it was from a thorough belief that nearly all recent advantages in medical education were due to the initiative and example of the University of London. He was also one of the early reformers of that University, who, after a ten years' struggle with the Senate, obtained a new charter from the Crown by which the members of Convocation were allowed to return Fellows to the Senate, and thus have a voice in the management of its affairs. Dr. Storrar was one of the first members of the Senate elected by the votes of the graduates in Convocation, and he always referred to this as one of the greatest honours in his life. His attendance at the meetings of the Senate was a model of regularity, and his knowledge of the details of its business was most minute and accurate, perhaps only surpassed by that of Dr. Carpenter, the late registrar. On the retirement of Dr. Foster, in 1864, he was appointed chairman of Convocation, and filled the post until last year, when he retired in consequence of his increasing deafness, and a liability to bronchitic attacks, which unfitted him for duties involving evening sittings in severe weather. He was also chairman of the Annual Committee, and rarely missed a meeting. The views of Convocation were always urged by him in the Senate, and members were quite sure that they would be pressed, even if personally he was not in entire sympathy with them. He was always, as he expressed it, the "devoted" servant of the graduates in Convocation. Dr. Storrar also served on the Endowed Schools Inquiry Commission, to which so many of our educational reforms are due, was a life governor of University College, and a governor of the Harpur Trust at Bedford, as the representative of the University of London. He was a man of fine presence and dignified manners; he entered zealously into all questions connected with the University, and fought for his views with all honesty and public spirit, and was always ready to hold out to his opponents the hand of friendship when the question was decided. His death has caused a void in the University ranks which will be long felt.

MR. C. LE VESCONTE GODFRAY.

THE island of Jersey has sustained a severe loss by the death of Mr. C. le V. Godfray, which took place on the 12th inst. Mr. Godfray was the son of a distinguished lawyer. He received his medical education at St. Bartholomew's Hospital, and became M.R.C.S. in 1859, and L.S.A. in 1860. Soon after he qualified he was appointed surgeon to the Jersey General Hospital, succeeding the late Mr. Jones, who achieved a European celebrity as one of the first advocates of excision of the knee-joint. Mr. Godfray had a very large general practice, but surgery was his favourite branch, and, with the only good surgical field in

the island at his command, he soon acquired the high reputation to which his experience and talents entitled him. He was a man of untiring energy, and worked hard at his profession—as hard as a man can work. If he had thought more of himself and less of others during the last year or two, possibly we might not have had so soon to deplore our loss. He was a man of quick, keen insight, seeming to seize the points of a case by instinct, and he had a promptitude and decision of manner and action which gained brusque, but this roughness of manner was often simply a confidence at once. His goodness and kindness of heart were over and over again felt by those to whom he not only gave advice, but often food and comforts. He shunned thanks; he was the sort of man who "did good by stealth, and blushed to find it fame." He will be greatly missed by his professional brethren, who were glad to avail themselves of his surgical skill and experience, as well as by his large circle of patients, and by the poor, who looked upon him as an unfailing resource in the hour of need.

Medical News.

UNIVERSITY OF OXFORD.—At a congregation held on the 11th inst., the degree of M.D. was conferred on

George Coates, Balliol.

UNIVERSITY OF CAMBRIDGE. — At a congregation held on the 11th inst., the degree of M.B. was conferred on

E. Collingwood Andrews and G. Darby Havil and, St. John's.

UNIVERSITY OF DUBLIN.—At a meeting of the Senate held last week the following degrees were conferred:—

BACHELOR IN MEDICINE.—P. S. Abraham, Alexander M'Neil D'Evelyn, Henry Cecil Earl, George Faris, Richard Bolton McCausland, Alfred Joseph McNally, George Burbidge Wite.

BACHELOR IN SURGERY.—Richard C. Bolton, Alexander McNeill D'Evelyn, Benjamin D. Dickson, William Ireland Donaldson, Henry Cecil Earl, Alexander Findlater, Robert Travers Lewis, Ross Vincent Beatty Smyth, James Christopher Weir.

DOCTOR IN MEDICINE.—P. Simon Abraham, Alexander Findlater, Thomas N. Flood, Thomas Richard Gillespie, H. Falconer Oldham, Ross Beatty Smyth.

COLLEGE OF PHYSICIANS IN IRELAND.—At the March examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Louis Aloysius Byrne, William Robert Hall Harris, Alfred Lees Halkyard, Ernest Robert Howe, William Arthur Johnston, James Henry Maguire, Herbert Charles Mooney, Henry D'Arcy Power, Thomas Redmond, W. James Robinson, Frederick Osborne Smith, Augustus Tabuteau.

MIDWIFERY.—Alfred Lees Halkyard, Ernest Robert Howe, Walter Kiddle, Herbert Charles Mooney, Thomas Redmond, William James Robinson, Frederick Smith, Augustus J. Tabuteau, Samuel Wilson.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on the 11th inst.:—

Benson, Henry Thomas, Aberynant, Llanidloes.
Clarke, William, St. Paul's square, Burton-on-Trent.
Kearney, James, Clapham.
Swyer, Robert, Brick-lane, Bethnal-green.

PROFESSOR M. LEVI, Director of the Clinic for Children's Diseases in Florence, has died from apoplexy.

SANITARY INSTITUTE OF GREAT BRITAIN. — The Autumn Congress and Health Exhibition of this institute will be held in the city of York in September next.

THE *Spitalul* states that at the recent *concours* in Paris two Roumanian students gained posts as internes and six as externes.

AT a meeting of medical practitioners belonging to Ayrshire, on the 5th inst., it was resolved to form an Ayrshire Medical Club.

THE death is announced of Dr. Kazakivich, who had charge of one of the Red Cross hospitals in the Russo-Turkish war. He had written much on medical subjects and had translated Ludwig's Physiology into Russian.

AT the Wolverhampton police-court two county court bailiffs were fined 20s. and costs, or in default a month's imprisonment, for having seized, under a warrant of distraint, a quantity of bedding on which two children suffering from scarlet fever were lying. In spite of warnings they removed the bed to a neighbouring public-house, where it remained some days without being disinfected, and was then sold.

ON the 17th inst., Surgeon-Major Evatt, of the Army Medical Staff, delivered an address at Owens College on Ambulance Work and the Formation of a Volunteer Medical Staff Corps for the Manchester district.

SEVENTEEN persons, amongst whom was a clergyman, were fined ten shillings with the alternative of seven days imprisonment, at Leicester on the 15th inst., for failing to comply with the Vaccination Act. The number of defaulters in the town is reported to be 7000.

NEW HOSPITAL IN MEXICO.—*El Observador Médico* states that a new hospital has just been finished and opened in the Calle de Regina, Mexico, the cost of which has been defrayed by a legacy left by Señora de Beistigui. The medical officers appointed are Dr. Joaquin Vertiz and Dr. Ismael Prieto.

AT the annual court of trustees and governors of the York County Hospital on the 16th inst., it was unanimously resolved that Dr. Matterson, who had signified his intention to resign his position as physician to the institution, be requested to accept the office of honorary consulting physician.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.—At a meeting of the Central Committee of the Association of Members of the Royal College of Surgeons, held on the 13th inst., a sub-committee was empowered to communicate with the Association of Fellows, upon the subjects of the Reform and the Charters of the College. At the same meeting a vote of condolence with Mrs. Cooper Forster was passed unanimously, in memory of the courteous manner in which the late President of the College received a deputation from the Association in January of last year.

THE DENBIGHSHIRE INFIRMARY.—Dr. Arthur E. Turnour, senior hon. medical officer to this institution, has given a munificent donation of £700 to the charity, "as a thank-offering to Almighty God for the recovery of his only daughter from a dangerous illness." The fund is to be applied to provide two free beds, the want of which in this hospital has been long felt. Dr. Turnour has rendered invaluable services to the infirmary for nearly forty years, and it was mainly through his instrumentality that the place has lately been reconstructed and a new wing added to it, at considerable cost.

CITY OF LONDON TRUSS SOCIETY.—The seventy-ninth annual festival dinner of this Society was held recently, upwards of 200 guests being present. The Lord Mayor, who presided, in proposing the toast of the evening referred to the increasing prosperity of the Society, and stated that the income from all sources for the past year amounted to upwards of £5000. In the course of the year the Society has been enabled to relieve upwards of 9000 sufferers, men, women, and children, this bringing up the total number relieved by the charity, since its foundation in 1807, to 413,316. During the evening subscriptions amounting to £500 were announced.

THE LEVEE.—At the levée held at St. James's Palace on the 15th inst. by H.R.H. the Prince of Wales on behalf of Her Majesty, presentations of the following members of the medical profession were made: Surgeon Henry M. Adamson, Brigade Surgeon J. E. T. Aitchison, Surgeon-Major Joseph A'Hearne, Surgeon J. B. Buchanan, Surgeon H. Herbert Brown, Dr. Robert Barnes, Surgeon Waller C. Beevor, Dr. R. W. Burnet, Surgeon-Command. James Cantlie, Surgeon William A. Carte, Surgeon T. Herbert Corkery, Surgeon W. R. Crooke, Surgeon Horace Cocks, Surgeon A. Rea Edwards, Surgeon E. H. Fenn, Surgeon Richard E. George, Brigade Surgeon G. C. Gribbon, Surgeon J. P. S. Hayes, Surgeon F. W. Hennessy, Surgeon Stanley J. W. Hayman, Surgeon John Kearney, Surgeon Arthur Kennedy, Surgeon H. W. M. Kendall, Surgeon E. H. Locker, Surgeon W. J. Lee, Surgeon-Major A. B. R. Myers, Surgeon C. H. Melville, Surgeon Bernard L. Mills, Surgeon Langton G. Mumby, Surgeon-Major James Magill, Surgeon H. M. Ramsay, Surgeon C. Alan Renny, Surgeon Hugh Rayner, Dr. Argyll Robertson, Surgeon W. E. Raw, Surgeon J. E. Squire, Surgeon F. L. Stephenson, Surgeon Whitley Stokes, Surgeon Frederick Skerrett, Surgeon Francis A. Saw, Surgeon Walter Squire, Surgeon Herman Thiele, Dr. John Tanner, Surgeon J. B. Wilson, Surgeon H. R. Woolbert, Surgeon C. L. Walsh, and Surgeon M. T. Yarr. The following, amongst others, attended the levée: Sir William Bowman, Bart., Sir Guyer Hunter, and Surgeon-Major R. Boustead.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ALLINSON, H. CALTHORP, M.R.C.S., L.S.A.Lond., has been appointed Honorary Surgeon to the West Norfolk and Lynn Hospital, vice Wilson, resigned.

CUMBERBATCH, A. E., F.R.C.S., has been appointed Aural Surgeon to the National Hospital for the Paralysed and Epileptic.

ELLISON, WILLIAM A., M.A., M.B.Oxon., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Eton District of the Eton Union.

EWART, CHARLES, M.B., C.M., has been appointed House-Surgeon to the Royal Hants County Hospital, Winchester.

FORSTER, T. F., M.R.C.S., L.R.C.P.Lond., L.S.A.Lond., has been appointed Senior House-Surgeon to the Carlisle Dispensary, vice J. Macdonald, M.B., resigned.

GOULD, ERNEST E., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the First District of the Hailsham Union.

HARRIES, ARTHUR J., M.D., M.R.C.S. (late Senior Assistant-Physician), has been elected Physician to St. John's Hospital for Diseases of the Skin, vice James Startin.

HEYWOOD, T. WALMSLEY, M.R.C.S., L.K.Q.C.P.I., has been appointed House-Surgeon to the District Infirmary, Ashton-under-Lyne, vice H. Payne, M.D., resigned.

LAWTON, HERBERT A., L.R.C.P.Lond., M.R.C.S., M. and L.S.A.Lond., has been appointed Medical Officer of Health for the Borough and Port of Poole.

MACDONALD, JAMES, M.A., M.B., C.M.Ed., has been appointed Medical Officer for the Stanwix District of the Carlisle Union.

MARSH, N. PERCY, M.B.Lond., M.R.C.S., has been appointed Assistant Honorary Medical Officer to the Infirmary for Children, Liverpool.

MAYNARD, FREDERIC P., M.B., M.R.C.S., L.R.C.P.Lond., has been appointed House-Surgeon to the Infirmary, Newcastle-upon-Tyne, vice J. W. Ridley, M.B., M.R.C.S., resigned.

PAIN, TERTIUS D'OYLEY, L.S.A.Lond., has been appointed Medical Officer for the Kentchurch District and the Workhouse of the Dore Union.

SCHOFIELD, GERALD, M.R.C.S., L.R.C.P.Lond., has been appointed House-Surgeon to the Yarmouth Hospital.

SEARLE, R. BURFORD, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Second District of the Penzance Union.

Births, Marriages, and Deaths.

BIRTHS.

BATTISCOMBE.—On the 8th inst., at St. Mary Cray, Kent, the wife of C. G. Battiscombe, M.B., C.M., of a son.

BROWN.—On the 13th inst., at Bartholomew-road, N.W., the wife of Andrew Brown, M.D., M.R.C.P.B., of a son.

COLTART.—On the 9th inst., at Ashbourne House, Epsom, the wife of William Wilson Coltart, L.R.C.P.Lond., M.R.C.S., of a daughter.

HARRISON.—On the 16th inst., at Sandringham-gardens, Ealing, W., the wife of R. Charlton Harrison, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., of a daughter.

MURRAY.—On the 12th inst., at Gloucester-place, Portman-square, the wife of Charles Stormont Murray, L.R.C.S., of a son.

STEPHENS.—On the 10th inst., at Brook-street, W., the wife of S. Sanders Stephens, M.R.C.S., of a daughter.

WHITE.—On the 11th inst., at Sliema, Malta, the wife of Staff-Surgeon W. R. White, R.N., H.M.S. *Sylvia*, of a son.

WOOD.—On January 22nd, at Leighton House, Stanmore, Sydney, the wife of W. B. Ramsden Wood, M.D., of a son.

MARRIAGES.

CLATWORTHY—HOPE.—On the 9th inst., at Holy Trinity Church, Dartford, Herbert Clatworthy, M.R.C.S., L.S.A.Lond., son of E. Clatworthy, Esq., late of H.M. Dockyard, Chatham, to Alice, daughter of the late Frederick Hope, of Kensington.

HANKINS—FULLERTON.—On January 20th, at Sydney, N.S.W., George Thomas Hankins, M.R.C.S., of Sydney, formerly of Clapham, London, elder son of the late Thomas Hankins, M.R.C.S., of Clapham, to Janet Christina, third daughter of the Rev. James Fullerton, LL.D., of Sydney, N.S.W.

DEATHS.

COURTENAY.—On the 15th inst., at Chandos-street, Cavendish-square, Francis Burdett Courtenay, M.R.C.S., in his 76th year.

FALWASSER.—On the 4th ult., at Neemuch, Central India, Francis Falwasser, F.R.C.S., Surgeon-Major, A.M.D.

JOHNSTONE.—On the 11th inst. (after four days' illness, of Bright's disease, pyæmia, and peritonitis), at Calcutta, George Hastings Johnstone, F.R.C.S.Eng., aged 48.

MAGENNIS.—On the 1st inst., at the Bolton Hotel, Peter Magenniss, M.D., Consulting Physician to the Italian Hospital, aged 73.

SMART.—On the 15th inst., at Argyll Lodge, Amhurst-park, London, N., James Smart, F.R.C.S., aged 66.

WEBER.—On the 10th inst., at 44, Green-street, Grosvenor-square, Frederic Weber, M.D., F.R.C.P., in his 78th year.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, March 22.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Wm. Arthur Brailey: The Muscles and Fascia of the Orbit.

SOCIETY OF ARTS.—8 P.M. Mr. Boverton Redwood: Petroleum and its Products (Cantor Lecture).

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Bowreman Jessett: Two cases of Amputation of the Penis by Mr. Pearce Gould's Modification of Thiersch's Operation for Epithelioma.—Mr. A. Pearce Gould: Notes of a case of Alveolar Abscess, causing Death.

Tuesday, March 23.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Function of Circulation.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Mr. S. J. Sharkey: On Spasm in Chronic Nerve Disease (Gulstonian Lecture).

SOCIETY OF ARTS.—8 P.M. Mr. Alexander Begg: Canada and its National Highway.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Hebb: Case of Tuberculosis of the Skin.—Dr. Theodore Williams and Mr. Godlee: Two cases of Bronchiectasis treated by Paracentesis, with Remarks on the Mode of Operation.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Capt. C. R. Conder: Present Condition of the Bechuana, Koranna, and Matabele Tribes.

Wednesday, March 24.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Tuesdays and Fridays, 9.30 A.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Wm. Arthur Brailey: The Muscles and Fascia of the Orbit.

HUNTERIAN SOCIETY.—8 P.M. Dr. Lewers: The Operative Treatment of Malignant Disease of the Cervix Uteri.—Mr. Toulmin: A case of Recurrent Vomiting.

SOCIETY OF ARTS.—8 P.M. Mr. W. H. Preece: Domestic Electric Lighting.

NEUROLOGICAL SOCIETY OF LONDON.—8.30 P.M. Inaugural Address by the President (Dr. Hughlings Jackson).

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Drs. Macnaughton Jones, Blake, Fancourt Barnes, and others.—Dr. Bedford Fenwick: Intra-abdominal Tumours as a Cause of Cardiac Degeneration.—Dr. Blake: Hamamelis in Venous Stasis.

Thursday, March 25.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Dewar: Electro-Chemistry.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Mr. S. J. Sharkey: On Spasm in Chronic Nerve Disease (Gulstonian Lecture).

SOCIETY OF ARTS.—8 P.M. Mr. Walter G. McMillan: Certain Appliances for the Utilisation of Refuse and Dust Fuels.

Friday, March 26.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Wm. Arthur Brailey: The Muscles and Fascia of the Orbit.

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Papers by Messrs. Michael, Morland, and Nelson.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Clutton: A case of Tubercular Ulceration of the Palate.—Dr. Longhurst: A case of Popliteal Aneurysm in a Patient the subject of Locomotor Ataxy, cured by Pressure.—Dr. Stephen Mackenzie: On the Connexion between Erythema Nodosum and Rheumatism.—Mr. Meredith: A case of Acute Intestinal Obstruction following upon Ovariotomy.—Dr. Handford (Nottingham): Myxœdema (?) in a Boy of fourteen years (living specimen).

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Mr. W. Chandler Roberts-Austen: On Certain Properties common to Fluids and Solid Metals.

Saturday, March 27.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Howard Grubb: The Astronomical Telescope.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 18th, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 12	30·32	E.	31	Fros.	...	37	30	...	Overcast
,, 13	30·37	N.E.	32	...	...	36	30	...	Overcast
,, 14	30·27	E.	34	33	...	38	31	...	Overcast
,, 15	30·05	E.	34	33	...	38	32	...	Overcast
,, 16	29·84	N.	31	...	...	39	27	...	Overcast
,, 17	29·89	S.E.	31	...	...	43	27	...	Foggy
,, 18	29·94	S.E.	37	35	...	47	30	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A RUSSIAN PRACTITIONER PUNISHED FOR REFUSAL TO ATTEND.

A FOREIGN correspondent, referring to an annotation which appeared in our columns on the 6th ult. on the subject of a practitioner being punished for refusal to attend a patient, calls attention to the consequences of such a condemnation to the defendant. Until the termination of the process he was prevented from leaving his dwelling-house; and as the lawsuit has lasted fifteen months (and, it appears, is not likely to be speedily concluded), all professional occupation, excepting in the cases of patients who are well enough to visit him, is impossible. He has also been prevented from going to a watering-place to which he has of late years been in the habit of repairing for his health's sake, and this prohibition will endure until the suit is ended. Refusal to attend a patient in Russia evidently means ruin to the luckless practitioner.

Edins.—Cocaine has been favourably reported on as a remedy in sea-sickness. But its efficacy is, we believe, not invariable.

"THE USE OF COCAINE IN OPERATIONS FOR PILES."

To the Editor of THE LANCET.

SIR,—Will you permit me to inform Dr. Pritchard, who wrote on the above subject in your last issue (p. 537), that I have for some time past used cocaine as a local anæsthetic for the removal of piles in suitable cases, having performed two operations prior to the appearance of the annotation in your issue of Jan. 31st, 1885 (p. 220), on Mr. Swinford Edwards' case. I make use of the words "suitable cases" advisedly, as I have found that the operation can only be performed painlessly by the use of cocaine when the pile is situated close to the margin of the anus, and not involving too great an extent of skin. I apply a 20 per cent. solution first around the mass, and afterwards inject hypodermically a few drops into its substance.

May I also be allowed to inform your correspondent that I claim to be the inventor of the clamp with which he has associated Mr. Downes' name (see correspondence between Mr. Downes and myself in the *British Medical Journal*, vol. i., 1885, pp. 703, 974).

I am, Sir, yours truly,

Baron's-court, S.W., March 15th, 1886. B. FITZROY BENHAM.

WRY-NECK.

To the Editor of THE LANCET.

SIR,—I should be glad if any of your readers could give me a hint on the treatment of a case of wry-neck. I have already tried hypodermic injections of morphia, liniments of iodine, belladonna, aconite, turpentine and soap, blisters, massage, together with the internal administration of iodide of potash, iron, quinine, nux vomica, and belladonna; but all without avail. Indeed, the case seems to be getting worse.

I am, Sir, your obedient servant,

Elgin-road, W., Feb. 23rd, 1886. JOHN BEATTIE CROZIER, M.B.

THE INSANE POPULATION OF VICTORIA.

FROM the report of Dr. T. T. Dick, Inspector of Lunatic Asylums in Victoria, for the year 1884, which has just been published, it appears that during the year the number of persons officially recognised as insane increased by 19, or from 3309 to 3228. During the past five years the average annual increase has been 45, as compared with 129 per annum during the preceding ten years. Of the 3228, 1749 were males and 1479 females. In the thirty-seven years ending with 1884, 9251 males and 6478 females, or 15,729 in all, have been admitted into the public lunatic asylums, 914 of these being readmissions. The percentage of deaths on the average numbers resident seems to be decreasing. In the three years 1882–4 inclusive it was in each year under 7; but in the preceding fourteen years there were only four years in which the percentage was under 7. The total receipts of the department during 1884 amounted to £6744, the expenditure being £96,225. Of the receipts, £5667 was collected by the Master in Lunacy for the maintenance of patients from their relatives and representatives.

A Junior.—Wilson Fox, Pavy.

"COLOUR-BLINDNESS AMONG MEDICAL MEN."

To the Editor of THE LANCET.

SIR,—The question raised by your correspondent, Mr. Piesse, in your last issue is a somewhat difficult one to answer. There can be no doubt that in medico-legal practice colour-blindness would form an obstacle which might prove insuperable. It is not the lot of every practitioner, however, to find himself in the witness-box, and the mere possibility of his being dragged into a court of law should, I think, weigh but lightly in considering whether a colour-blind man is justified in adopting medicine as his profession. As regards general practice, I cannot imagine that colour-blindness would really be a serious bar to success. Pitting a physically sound man against a physically unsound one, the advantage would, of course, appear to be, *ceteris paribus*, in favour of the sound one. The examples given by Mr. Piesse as possible points of difficulty need not, I think, be made much of. The diagnosis of iritis certainly does not rest so much on the colour of the iris as on the concomitant symptoms, such as ciliary injection, thickening of pupillary margin, contraction of pupil, and, under atropine, irregular dilatation, to say nothing of synechiæ, if they exist. Glaucoma is not diagnosed simply by the greenish colour to which the disease owes its name, but rather to the tension of the globe, the condition of the disc and vessels, the appearance of the capsule of Tenon, the acuteness of vision, the well-known rainbow colours seen by the patient, the pain and the contracting field of vision, &c. Again, in the exanthems the colour of the rash is not so important a feature in diagnosis as the history of the attack, the period of incubation, the temperature of the patient, and the form and situation of the eruption. Have we not "scarlatina sine eruptione"? Nevertheless, there are drawbacks resulting from colour-blindness which cannot be disguised. Whenever the safety or well-being of a number of persons depends on the perfect vision of one individual, it should be ascertained beyond doubt that the individual in question is not colour-blind. This may be the case with those who enter the army and navy. From what I know of the tests to which candidates for the services are subjected, I am of opinion that the vision is not examined sufficiently carefully, and many men are passed whose sight is far from satisfactory. The ordinary coloured wools would, I feel sure, reveal many cases of colour-blindness in military and naval men, if carefully used. The commonest confusion colours are reds and greens. These happen to be the very colours used for signals in the navy and elsewhere. The uniforms of most of our soldiers are scarlet; and yet many men in our ranks might say they were green! It has been my lot to meet with two railway officials, practically concerned with traffic management, who confused reds with greens. The danger to which passengers are exposed if colour-blindness be overlooked in railway *employés* is painfully obvious. Considering all things, therefore, it seems to me that a general practitioner may get on very comfortably under ordinary circumstances notwithstanding colour-blindness, whilst a medical officer carrying out special duties requiring more perfect vision may fail to succeed.—I am, Sir, yours truly,

A. ST. CLAIR BUXTON, F.R.C.S.,
Assistant-Surgeon to the Western Ophthalmic Hospital.

Orchard-street, W., March 15th, 1886.

ON A METHOD OF CONTROLLING BLEEDING DURING COMPLETE OR PARTIAL EXCISION OF THE TONGUE.

To the Editor of THE LANCET.

SIR,—Would you allow me to make a suggestion which may be of use to Mr. Jordan Lloyd and others who may adopt his method of removing the tongue, as described by him in a recent number of your valuable journal. By Mr. Lloyd's alternative way of introducing the needle the second time, directly through the skin, there is, as he says, danger of causing sloughing. This danger may be obviated by placing the half of an ordinary cork, split in its long diameter, upon the skin between the punctures, and then tying the ligature over it. In this manner an elastic pad is produced, which will effectually protect the skin from the pressure of the whipcord ligature, and will furnish a very convenient support against which to compress the lingual vessels.

I am, Sir, yours truly,

Larnaca, Cyprus, Feb. 15th, 1886. J. G. LAFFAN, Colonial Surgeon.

CHRONIC URTICARIA.

DR. J. BRISBANE, of 21, Park-road, Regent's-park, writes to thank the many gentlemen who have so kindly communicated with him regarding his case of chronic urticaria. It would be too great a task to reply to each individually; he therefore trusts that they will all accept this acknowledgment. Dr. Brisbane adds that the rash had spread over the whole body, and the irritation had become agonising, the patient saying that the pain he suffered during the continuance of the rheumatism was more tolerable than the fearful itching and burning of this rash. Under the use of Donovan's solution the patient improved for a time, the rash nearly disappearing; but it soon returned, and has since been rebellious to all treatment. Dr. Colcott Fox kindly saw the case, and expressed the opinion, as had Dr. Crocker, that it was one of "dermatitis herpetiformis," as described by Dr. Duhring of Philadelphia. At his suggestion, the patient was brought before the Dermatological Society on March 10th, when those present concurred in this diagnosis. Dr. Brisbane himself has no doubt that the case is one identical with those described by Dr. Duhring under the title "dermatitis herpetiformis (erythematosa)," but regrets that Dr. Duhring does not give a single suggestion as to treatment.

T. S. H.—Office of the Crown Agents for the Colonies, Downing-street.

LONDON HOSPITAL MEDICAL COLLEGE.

To the Editor of THE LANCET.

SIR,—The account of the ceremony of laying the corner-stone of the new buildings in connexion with the London Hospital Medical College contained in THE LANCET last week assigns so subordinate a position to the staff of the hospital that it might be thought that the medical school is entirely under lay management, that the College is being enlarged at the sole cost of the governors of the hospital, and that the staff were present merely as spectators of a function with which they had no particular concern. For this reason, and for the sake of an accurate record, some amplification of the account is rendered desirable.

It had been appropriately arranged in the authorised programme that the ceremony should be opened by an address to the visitors by Sir Andrew Clark, as the representative of the staff. He was unable to attend, and at the last moment the duty of inaugurating the proceedings suddenly devolved upon myself, as the senior member of the staff actually present. In the course of my remarks I pointed out that the original medical school buildings at the east end of the hospital were erected in 1783–85 by the medical staff, assisted to some extent by subscriptions from individual governors and friends of the hospital. In 1854 the fabric which is now in great measure disappearing, to be replaced by an enlarged college, was erected, at a cost of more than £10,000, by the governors, who required the old school buildings for absorption into an expanding hospital. Since then two enlargements, one in 1871 and the other in 1879, have taken place, and in each instance by means of money borrowed by the medical council of the school from the governors, and repaid out of the students' fees. A certain amount of the sum required for the first of these two enlargements was handsomely remitted by the house committee. The present enlargement is being carried out in a similar manner. The sum of £15,000 has been lent to the medical council of the school by the house committee and governors of the hospital, and the interest will be paid in perpetuity by way of rent, and as a first charge on the fees received from students. In every instance the erection of school buildings has resulted from the urgent representations of the staff and lecturers to the governing body of the hospital, and, save in 1854, when a new and more expensive edifice was given in exchange for the old school, the sinews of war have been guaranteed or provided by the staff and lecturers. The school, however, has been greatly benefited by the cordial co-operation and liberality of the members of the house committee. After giving the main details of the new building embodied in your annotation, I alluded to the present government of the school by a conjoint board, consisting of an equal number of representatives of the house committee and the medical council. The happy conjunction of these two bodies, working formerly on parallel lines which do not meet, has ensured a unity of design and action which were unavoidably absent under the old, but by no means inactive or inefficient, management. After a brief service of prayer, conducted by the chaplain, Mr. Valentine, and the laying of the stone by Mrs. Thompson, the meeting was briefly addressed in congratulatory terms by Mr. Thompson (the chairman of the College board), by Mr. Carr-Gomm (the chairman of the house committee), and by Mr. Frederick Treves in response to a call from the students, who were present in force.

I am, Sir, yours faithfully,

Finsbury-square, E.C., March 15th, 1886. WALTER RIVINGTON.

PRACTICE AT THE CAPE.

To the Editor of THE LANCET.

SIR,—I should feel much obliged if any of your readers could give me some information about practice in South Africa. What parts of the colony afford the best openings at present, and what capital would be necessary for the purpose of starting in practice? Are drugs easily obtainable in the colony? Would it be advisable to take out a supply? In what part would the climate be most suitable for a surgeon whose lungs are slightly affected? Any other information will be most thankfully received by

Yours obediently,

March 2nd, 1886. A CONSTANT READER.

PAPAL AND TALMUDICAL OPINIONS ON CRANIOTOMY.

A SHORT time ago it was announced that the question of craniotomy had been carefully discussed by the Inquisitors-General at Rome, who voted unanimously against the practice on the ground that the taking of a human life could not possibly be justifiable, except as a legalised punishment for crime. This finding was formally referred to the Pope, who ratified and promulgated it. Dr. Mielziner, Professor at the Hebrew College, Cincinnati, has, thinking it to be of interest, recently published the Rabbinical view on this question, which is as follows:—"In Mishna *Ohaloth*, vii. 6, the undisputed decision is laid down that 'in case of a dangerous parturition it is justifiable to kill the unborn infant in order to save the mother, as her life precedes its life.' Such operation is, however, not permitted after the infant has already been partially born, as in the latter case the maxim applies that one human life must not be set aside on account of another. In his commentary on Tami. Sanhedrin 72b, where this Mishna is quoted, *Rashi* explains the reason of the distinction between these two cases that the unborn infant is not yet a *distinct personality* with an *independent* life, hence the duty of saving the mother's life is to prevail, while in the second case its individuality is established, hence the legal principle must apply that one life must not be destroyed to save another. The authoritative codes of Maimonides (Hilchoth Rotzeach u Shemirath Nephesh I. 9), as well as of R. Joseph Caro (Choshen Mishpat 425, 2), adopted the decision of the Mishna as the rule of Jewish law." It must be conceded that the Rabbinical view in this case is much more in accordance with common sense and with the highest regard for the sanctity of human life than the Papal opinion.

M.D., F.R.C.S.—1. We are not aware of such an instance.—2. No.

"THE NEUROTIC TREATMENT OF CATARRH."

To the Editor of THE LANCET.

SIR,—In reference to Dr. Lees' communication on the neurotic treatment of catarrh, in your issue of Feb. 27th, I would like to emphasise the fact that in many cases the disease may be promptly checked by local remedies; but the one I have found to be the most efficient he has omitted to mention. Personal experience, extending now over several years, has taught me that when the catarrh is the result of an exposure to a cold or east wind (less frequently, perhaps, when due to a general chill), it can always be limited to the nostrils, and cured in a few hours, by the occasional inhalation of a strong solution of ammonia. I have tried many other reputed and well-known remedies, but I have found none of them so useful, convenient, and satisfactory as this. All that is necessary is to sniff from a small bottle containing about a drachm of the liquid and repeat the dose whenever the return of the watery flux indicates that the effect of the former inspiration is passing off. The frequency and number of the inhalations will be, of course, inversely proportionate to the amount and strength of the vapour drawn into the nostrils. As the bottle can easily be carried in the pocket, it is also obvious that such a remedy gives the minimum amount of trouble, and can be used anywhere, even unobserved. I need only add that when prescribing for others I combine the ammonia with compound tincture of benzoin or other aromatics, and that I should always prefer quinine to bromide of potassium for internal administration.

I am, Sir, yours truly,

Tunbridge Wells, March 8th, 1886. G. ABBOTT.

To the Editor of THE LANCET.

SIR,—I read with much interest Dr. Lees' paper in THE LANCET of Feb. 27th, more particularly as I have been in the habit of using one of the drugs which he recommends—viz., belladonna—for the treatment of catarrh in my own person for more than five years, having been led to do so by the perusal of a letter in your columns in which its virtues as a remedy for catarrh were extolled. My object in troubling you with this communication is to point out that, as far as the writer's personal experience goes, belladonna is a sure and certain remedy for catarrh when taken in the initial stage—i.e., when a general chilliness of the surface and a dryness of the nasal mucous membrane are felt. Taken thus promptly, a dose of from twenty-five to thirty minims of tincture of belladonna has never yet failed to check an attack, and consequently to anticipate and prevent the sneezing, nose-weeping, and other disagreeable concomitants of "a cold in the head."

I am, Sir, yours truly,

Watton, March 3rd, 1886. H. MALLINS, M.D.

THE CANTANI TREATMENT OF PHTHISIS.

Æsculapius.—From a culture of what he calls the "bacterium termo" in sterilised broth Dr. Cantani obtains a liquid which he causes to be inhaled before the patient's mouth. In the struggle for existence between the "bacterium termo" and the bacillus of Koch, the latter, he says, succumbs. This, Dr. Cantani avers, he had ascertained experimentally by the commingling of the two cultures, and on applying the principle to the treatment of pulmonary phthisis he has had quite satisfactory results in three cases in his clinique. The cure, he adds, is effected in less than three months. A treatise on the subject, similar to his well-known one on "Hypodermoclysis," is anxiously expected from the brilliant Neapolitan therapeutist.

Dr. N. E. Davies' paper is marked for insertion.

DIPHTHERIA AND PIGEON-KEEPING.

AT a recent meeting of the Anatomical and Pathological Society of Brussels, M. Destrée called the attention of the members to the fact that cases of croup had been greatly and steadily on the increase in Brussels, so that croup and diphtheria were now endemic there, and he ventured to suggest that there might be some connexion between the keeping of pigeons and the occurrence of these diseases. He pointed out that Emmerich of Munich had found the microbe of diphtheria in these birds, and he himself had met with three cases of croup in families where pigeons were kept, in all of which cases signs of the disease had appeared in the pigeons. M. Destrée hoped that members would bear this matter in mind, in order that it might be further elucidated.

Mr. R. Jolly.—Payrer, Tropical Dysentery and Diarrhœa and other Diseases, 1881; Maclean, Articles in Reynolds' System of Medicine, vol. ii.

BATH CHAIRS AT HASTINGS AND ST. LEONARDS.

To the Editor of THE LANCET.

SIR,—The attention of the Hastings Town Council has just been called to a letter on the above subject which appeared in your issue of Jan. 16th last; and as some of the statements made by the writer are calculated to produce a misleading impression in the minds of those who are unacquainted with the facts of the case, I have been directed to ask you to be good enough to insert this explanation in your next issue.

In the first place, the drawing of wheeled carriages of any description whatever on foot pavements, so as to be an obstruction or annoyance to passengers, is prohibited by statute law (the Towns Police Clauses Act, 1847), which is in force in every town in England, and which may be put into operation by "any person aggrieved," as well as by the police authorities; so that it is obvious that neither the Council nor the superintendent of police has any power to give "permission" for Bath chairs to be drawn along the foot pavement. At the same time there is not the slightest probability that any action would be taken by the police authorities in a case in which the foot pavement was being made use of in consequence of the afflicted state, whether owing to a nervous or spinal complaint or otherwise, of the occupant of a Bath chair, unless under very exceptional circumstances, as the crowded condition or narrowness of the foot pavement.

It has been the earnest desire of the Town Council to afford every possible facility and comfort to the numerous invalids who resort to the town for the benefit of their health. They have licensed over 100 Bath chairs, and have had the Parade, for a length of upwards of a mile and a half, paved with asphalte and tar paving, upon which Bath chairs are allowed to be drawn practically without restriction. I may just mention that nearly, if not quite all, the Bath chairs here are provided with indiarubber tyres, which have the effect of materially reducing any jolting motion when they are drawn on the roadway.

I remain, Sir, yours truly,

Hastings, March, 1886. GEO. MEADOWS, Town Clerk.

Student.—Medical etiquette abroad cannot always be made subservient to the strict rules which obtain in the United Kingdom.

"SCARLET HOSIERY."

To the Editor of THE LANCET.

SIR,—In answer to Mr. Holmes' inquiry in your last issue (p. 526), I beg to say that the symptoms in the case of my friend (Mr. Luff of St. Mary's Hospital) were swelling, inflammation, and pain in two or three toes, accompanied a day or two later by swelling, inflammation, and pain in one of the lower vertical inguinal glands.

I am, Sir, yours obediently,

Marylebone-road, N.W., March 16th, 1886. JOHN WOODLAND.

ATROPINE REACTIONS.

MORE than a year ago Mr. Gerrard demonstrated that atropine and other mydriatic alkaloids were so powerfully alkaline as to precipitate mercury from the solution of mercuric chloride. Flückiger has confirmed his results, but has asserted that atropine does not blacken calomel—mercurous chloride. Mr. Gerrard has brought forward, in the *Pharmaceutical Journal*, evidence to show that mercurous chloride is blackened by atropine.

Surgeon-Major Staples.—In an early number.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Henry Thompson, London; Dr. Julius Pollock, London; Dr. J. Braithwaite, Leeds; Mr. Pollard, London; Dr. Sansom, London; Dr. O'Connell, Chicago; Dr. Collier, Oxford; Dr. Dulles, Philadelphia; Dr. Dale, King's Lynn; Mr. Lindsay; Mr. H. C. Fox, Stoke Newington; Dr. H. Sinclair; Dr. Chunder Roy, Beerbhoom; Dr. H. M. Duncan, London; Mr. Salter, Gisborne; Surg.-Major Boustead; Dr. Kirk, Partick; Mr. J. H. Davies, Denbigh; Dr. Squire, London; Mr. E. Duke; Dr. Herschell, London; Mr. Masterton, Nenthead; Mr. W. M. Jones, Rotherham; Mr. Southam, Manchester; Mr. St. Clair Buxton, London; Mr. Stempel, London; Mr. Canning, London; Mr. Lawson Tait, Birmingham; Dr. Bell Taylor, Nottingham; Mr. G. S. Davis, Detroit; Mr. Walter Rivington, London; Mr. J. Creaghe, Buenos Ayres; Mr. Rankine, Sunderland; Mr. Stokes, Liverpool; Mr. J. Hardie, Manchester; Dr. Brisbane, London; Messrs. Sampson and Price, Manchester; Mr. Dobie, Chester; Dr. Reimann, Kiev; Mr. H. J. Greenish, London; Dr. Wild, London; Messrs. Calvert and Co., Manchester; Mr. Foxwell, Birmingham; Mr. Caufield; Messrs. Savory and Moore, London; Mr. Blenkinsop, London; Mr. Parry, Huddersfield; Mr. Meadows, Hastings; Mr. C. Siewers, London; Mr. Stone, Pontefract; Mr. F. Benham, London; Mr. Piesse, London; Mr. J. Shorten, London; Messrs. Loeflund and Co., London; Messrs. Furse and Co., South Molton; Dr. Adam, West Malling; Messrs. Robertson and Co., London; Mr. Smith, Brighton; Messrs. W. & A. K. Johnston, Edinburgh; Mr. Scott, Manchester; Messrs. Bennett Bros., Salisbury; Mrs. Lloyd, Brighton; Dr. Clark, Dumfries; Messrs. Condy and Co.; Mr. Maw, London; Mr. Miller, Leek; Dr. Fothergill, London; Mr. Percy Dunn, London; Mr. S. Benton, London; A Junior; Dubitans; X. Y. Z.; Medicus; M.D., F.R.C.S.; Vele Bene Facere; Chemicus, Exeter; Justice; Mrs. R.; Medical; W. R., Kingsbridge.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Stair, Pirœus; Miss Robbins; Mr. Montfort, Carlow; Miss Hatton, Langley Mill; Mr. Pattre, Edinburgh; Mr. Logan, Glasgow; Messrs. Goodall and Co., Leeds; Mr. Ker, Halesowen; Mr. Barron; Mr. Mason, Highbury; Mr. Fulton, Toronto; Mr. Kennedy, London; Dr. Frankell, South Africa; Mr. Hamilton; Mr. Stott, Southport; Mr. Gevons, Southport; Dr. Raitt; Dr. Mason, Pontypool; Mr. Ellis, Bishop Auckland; Dr. Eberle, Thirsk; Mr. Brundett, Toronto; Mr. Adams, Ipswich; Dr. Hunter; Mr. Skipworth, Calstor; Mr. Pace, Newcastle-on-Tyne; Mrs. Taplett; Mr. Russell, Birmingham; Mr. Morgan, Islington; Mrs. James, St. John's Wood; Mr. Black; Dr. Steward, Bognor; Mr. Morgan, Oswestry; Dr. Leckie, Pontypridd; Mr. Sers; Mr. Russell, Birmingham; J. S., Bromsgrove; Medicus, Liverpool; Epsilon; Medical; Surgeon, Bristol; H. X., Denbigh; M.B., Southport; H. J. P., Alnwick; Medicus, Sheffield; B. W.; Medical Officer, Orkney; M. C., Loughboro'; F. C. P., Chalford; Matron, Bedford Infirmary; Medicus, Barnsley; M. M.; Surgeon, Ryton-on-Tyne.

Dietetic Reformer, Lincolnshire Chronicle, Manchester Examiner, Ayrshire Post, Hull Daily News, Portsmouth Evening News, Tablet, Sheffield Daily Telegraph, Hexham Courant, Freeman's Journal, &c., have been received.

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